HOMEPC

the premier guide to home computing

85 GREAT HOLIDAY Gifts

PLUS! WIN 95 Explorer Tips

For Everyone on Your List!

Happy Holidays

**Testers' Choice:
The Best
New PCs**

**Software
Support
Readers
Tell All**

December 1995

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- 15" MAG Flat-Screen 1280x1024 Monitor
- 14,400 Baud Fax/Modem w/voice mail
- Toshiba 4X CD-ROM Drive
- 16-Bit Stereo Sound Card
- Magnetically Shielded Stereo Speakers
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FEATURES

SPECIAL SECTION! *after p.444*

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MechWarrior 2 brings arcade blockbuster BattleTech to the PC—and blows away the competition; Panic in the Park weaves Skee Ball, Whack-a-Mole and more into a mystery on the midway; All-Star Baseball sparkles like a diamond; Windows 95 puts the pedal to the metal in Al Unser Jr. Arcade Racing. Also: Under Pressure, Dagger's Rage, MegaMan X, Space Quest 6: The Spinal Frontier.

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Julia Child and 16 top chefs serve up a CD-ROM menu filled with culinary delights; delve into NFL history with 75 Seasons. Plus: Everything Weather, Kana-kun, Tour of USA National Parks, more.

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How to get to Sesame Street? Install three delightful new CD-ROMs; Casper: Brainy Book offers spirited fun; Jack's House is a nice place to live, but kids didn't want to visit; Learn the Art of Magic mesmerizes youngsters; KidMail Connection tries to get kids on the Internet safely. Also: Etch-A-Sketch, Hollywood, more.

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If you're racing to find home-office machines, take five—Xerox comes up with a four-star multifunction machine; new PowerPC PowerBook is a chip off the old block; micro-Connect telephony card has some installation hangups; you'll be hard-pressed to find higher-quality video-capture images than Video Artist's. Plus: CH Pedals, SyQuest backup, Casio QV-10 digital camera.

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Dr. PC's Clinic
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from the editor

For years, my favorite holiday present was a turquoise princess-style dress with black-velvet trim and what seemed to me to be hundreds of black buttons down the front. It was a chore to fasten all those buttons, but at the time it was the most grown-up dress I'd ever owned, and I loved it.

A new tradition: home computing for the holidays

We all want to find a gift that will make the people we care about just as happy, but it's rarely easy. Every year I have trouble finding the perfect gift for my son, who has a taste for expensive consumer electronics equipment. My daughter is easier to satisfy—she's made it clear that "you can never have too many pairs of boots."

If the loved ones on your list own a home computer, there are hundreds of great, reasonably priced products that may fill the bill for you this season. Our Holiday Gift Guide (page 123) showcases 85 of the best, for gamers, golfers, gardeners, divers, art lovers, history buffs, movie makers, Internet surfers, travelers, trivia fans and kids of all ages. Ranging in price from $8.95 for an Internet desk calendar to $279 for a high-speed modem, there's something for every taste and budget.

And if this is the year you've decided to buy a computer—for yourself, your kids, your parents or your home business—check this issue for a revealing look at the computers you'll likely be considering at the store. In this month's Consumer Lab (page 257), 24 people from all walks of life and levels of computer experience put 11 top computers through their paces. When the votes were tallied, we had a tie for first place: look inside to see which computers our jury selected and the reasons why, as well as their comments about their true-life out-of-box experiences with all the models they tried.

To help ensure you have all the information at your fingertips to make your shopping experience as efficient as possible, we've included a pullout checklist and guide so you can compare the specifications on the computers you're considering with our recommended configuration for peak performance. Whether it's your first time shopping for a home computer or you've spent more hours in computer stores than some PC salespeople, this card will come in handy.

And for those who aren't sure what all the categories on the card mean or why they matter, see our two-page, under-the-hood reference diagram (page 280), which illustrates and describes all the elements that make a PC tick.

No matter what kinds of gifts you're buying this season, a special present deserves a special card. Turn to page 184 to see how to make your own multimedia greetings—original holiday messages containing sound, video and text, which you can send to friends and relatives (who'll need their own computer to play them back). These greetings are surprisingly easy to make, although they do require a bit of time. If the holiday crunch becomes too hectic to let you tackle one yourself, visit our forum on America Online (Keyword: homepc) and see the multimedia greetings contributing editor Carolyn Jabs made; you can even download one of our original creations and send it to someone special.

Just as computer-generated greeting cards can dress up your presents, pattern-making software can do wonders for your wardrobe if you're inclined to make your own clothes. (I admit the only thing *I* ever tried to sew ended up in my mother's rag bag.) This month, we invited an award-winning quilt artist to test the packages; you'll see what she stitched up for the holidays on page 237.

One thing's for sure, whether you're making sewing patterns or greeting cards, or giving software as gifts this holiday season—we all expect software to work properly. Yet it's difficult—if not impossible—to get some programs up and running on every

PC. Is there anything more frustrating than having to tell your kids on Christmas morning that their new games won't work? Whom do you call for help? We asked more than 4,000 readers to tell us how they feel about software support and reliability. As our comprehensive report on our survey results (page 171) shows, manufacturers have their work cut out for them to deliver reliable software and respond promptly to calls for help. The tales of woe you'll read here put a human perspective on this shocking statistic: Consumers return 40 percent of all CD-ROMs they buy.

Of course, one of the major selling points of Windows 95, the new operating system for PCs, is that it reduces the hassles of software installation. As part of our continuing coverage of the Microsoft product, which most shoppers will find installed on new PCs this season, we offer 20 tips for using Explorer, the powerful new tool for managing files (page 207). And look for the final installment of our three-part series of Windows 95 Visual Guides (following page 444), focusing on the system's built-in features to boost a computer's performance.

Meanwhile, if you need a spiritual boost amid all the hustle and bustle of the season, we look at how the worlds of technology and faith come together in cyberspace (page 224). Father Paul Keenan, who hosts weekly discussions on Prodigy, believes that the relative anonymity of on-line chat helps to break down many Americans' late-20th-century shyness about religion. Whatever your beliefs are, you can find an electronic community eager to discuss them on the Internet or the commercial on-line services.

We hope you enjoy this issue, our biggest ever. On behalf of all of us at *HomePC*, I wish you a healthy, happy holiday season. •

Ellen Pearlman

**Ellen Pearlman,
Editor-in-Chief**

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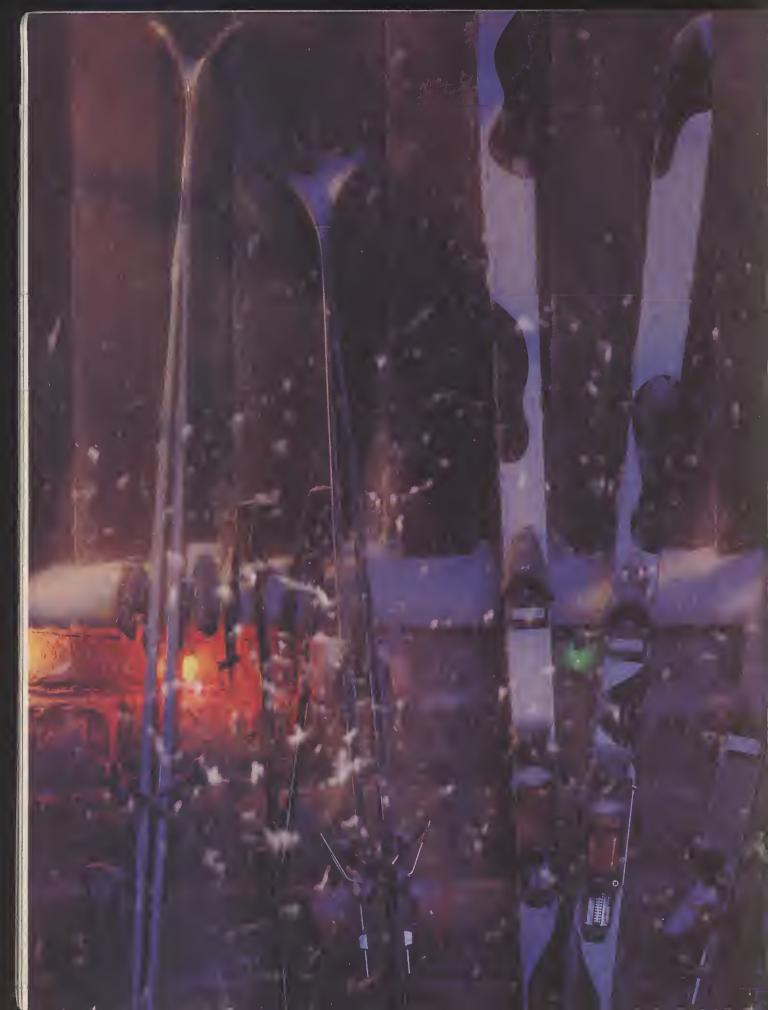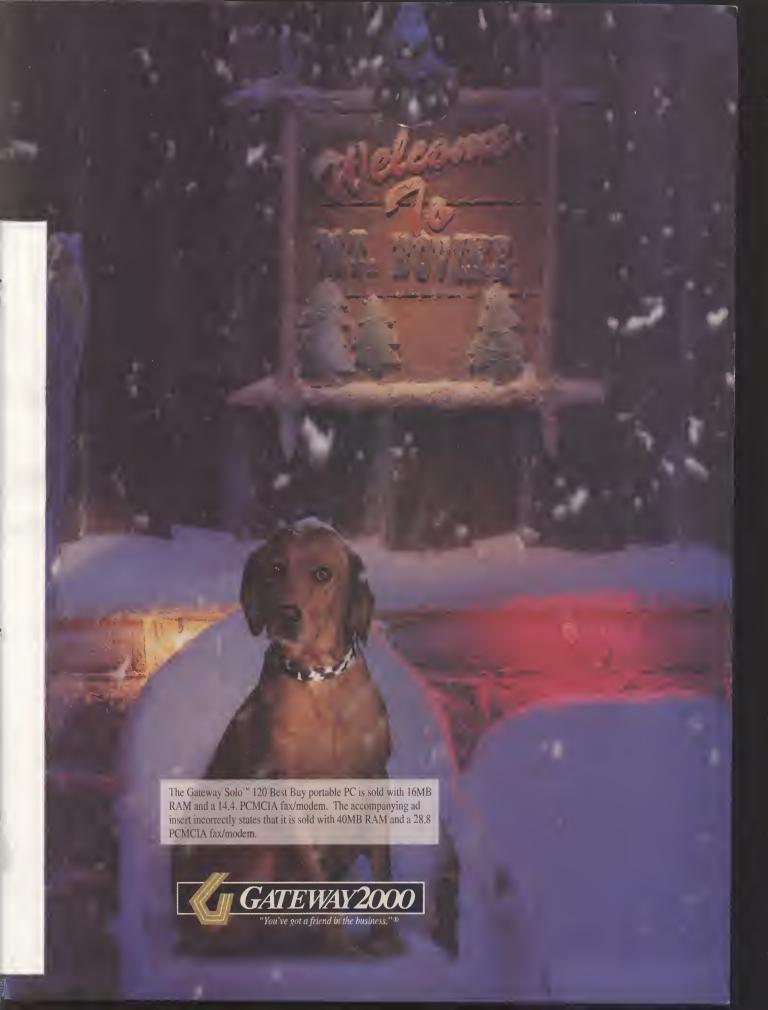
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letters

Win 95? I want *HomePC* '95

Thanks to *HomePC*, my Windows 95 installation was a breeze. The Nuts + Bolts section in your October issue (page 169) was just what I needed to get the new operating system up and running on our PC. The screen images and the descriptions made the installation easy and painless; I kept the magazine in front of my keyboard during the entire process, while the Microsoft documentation never left the box.

Your special section, A Visual Guide to Windows 95 (after page 222), was another valuable source of information. It went through the basics our family needed to know without getting too involved. We can dig deeper into Windows 95's features as we experiment on our own.

Have you considered putting out a year-end CD-ROM containing all the year's issues? It would be an indispensable source of information for your readers.

Bill Watkins
Cincinnati, Ohio
via the Internet

Editor's reply: While we're not planning such a disc this year, we have compiled an index of all the topics and products covered during 1995, so you can find what you're looking for quickly and easily in your back issues of HomePC. *Our 1995 Editorial Index will be posted in the on-line version of this issue on America Online (Keyword: homepc) and the Internet's World Wide Web (*http://techweb.cmp.com/hpc*), or you can write us for a copy (see details on page 166).*

PC (Preschool Curriculum)

I'm very grateful for Windows 95; my 2½-year-old son loves it. I videotaped him loading the first few disks of the software, and when he became impatient, I finished the installation.

Now, after making shortcuts to his favorite programs, I can't keep him off the computer. He's already learned how to use the keyboard and the mouse—and more than half the alphabet. If Windows 95 and good educational programs make computer use this easy for a toddler, what reason could adults have for not attempting to learn?

Millard E. Vandermark
Hallstead, Pa.

Prenatal software delivers

As a medical professional, I was particularly interested in your recent feature "What To Expect When You're Expecting a Baby" (October, page 121). I found the article incisive and informative,

and I'm sure any expectant parent would as well. As more software producers use the tremendous potential of the CD-ROM format to educate as well as entertain, I am sure we will see more products such as those so intelligently reviewed in this story.

The purpose of the written word is to inform and/or amuse, and I am heartened to note that *HomePC* does both in an intelligent, well-structured and readable manner. It stands out as a superior journalistic effort in a surfeit of similar, less able publications.

D.J. Roelike
Columbia, Md.
via America Online

In rural areas, BBSes rule

I've never written "fan mail" to a magazine before, but I must tell you that *HomePC* is probably the best computer publication I've come across—and I've picked up copies of every one I've seen in the stores. Yours is the only one I've subscribed to.

Regarding the letters that appeared in your September and October issues about the lack of local access numbers for commercial on-line services in some rural areas, here's another suggestion: There are local bulletin board services around the country that provide e-mail, Internet access and more. I found one in my local calling area for $9.95 a month, with 50 hours free and 50 cents for each additional hour. The service has no graphics for now, but hopes to add them in the future. Meanwhile, this BBS is much more affordable for me than any of the commercial services, since I'm not in an area served by their local numbers.
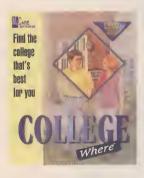
Barbara Rosman
Ellenton, Fla.

One tip deserves another

Your September article on desktop publishing ("Design Intervention," page 106) was very informative. I produce a small newsletter for a country-and-western dance group, and found several design tips that I was able to apply to the next issue of my publication.

I'm relatively new at computing and desktop publishing, but I'd like to pass on a suggestion that's worked for me regarding computing in general: When you get your first computer, learn one pro-

letters

gram—and only one—as thoroughly as possible. I chose Microsoft Publisher to focus on. By finding out everything I could about that program, I reduced my learning curve for other software. This tip was given to me by a co-worker who had spent a lot of time trying to learn everything at once when he got his first computer.

Larry E. Jacobson
Eau Claire, Wis.
via America Online

A few of my favorite things

I've been receiving *HomePC* since the first issue. Your Consumer Lab covering the major on-line services (September, page 111) gave me the courage I needed to finally try America Online. I also enjoy Ask Dr. PC, your many software reviews, and the sections covering personal productivity. *HomePC*'s format makes it very easy for any computer user to understand and enjoy the magazine.

Mike Keel
Plover, Wis.
via America Online

Insider's view

When I started reading your magazine, I worked for a company and did most of my computer work there. However, late last year I was laid off from my job and decided to start my own business. I followed your Nuts + Bolts section's instructions to install new internal components in my PC and upgrade my memory. Then I decided I really needed a new computer, and have already upgraded the memory on it to 16 megabytes; I've also installed a new, faster fax/modem, and a 1,260-MB hard drive. I couldn't have done all this without your guidance. My friends are amazed that I dare even to take the cover off my PC.

I've enjoyed *HomePC* since the beginning, and sing your praises to anyone who will listen. I'm always giving out the subscription cards that come in each issue. Thanks!

Debra R. Jackson
Pinehurst, N.C.

Simple lessons

I purchased a personal computer for myself and my 9-year-old son. Then, finding that our schedules didn't allow us to share the PC easily, I bought my son his own computer. I'm glad I did—the educational opportunities are endless, and it's an investment in his future.

HomePC is the best of all the computer magazines. It provides not only helpful tips, but information about new software programs for my son's enjoyment and education. I look forward to each issue; yours is the only PC magazine I find fun to read.

Susan Schaedle
Memphis, Tenn.

From learning to earning

I really appreciate the way you talk to those of us who are somewhat new to computing, in terms we can learn from. I've been receiving *HomePC* for about six months and plan to continue to read it for years to come. You've helped me enormously to understand how to use my computer more effectively, and also how to fix many problems myself. In fact, because of your magazine, I've acquired the confidence to start my own home-based computer business.

J. Heather
Racine, Wis.
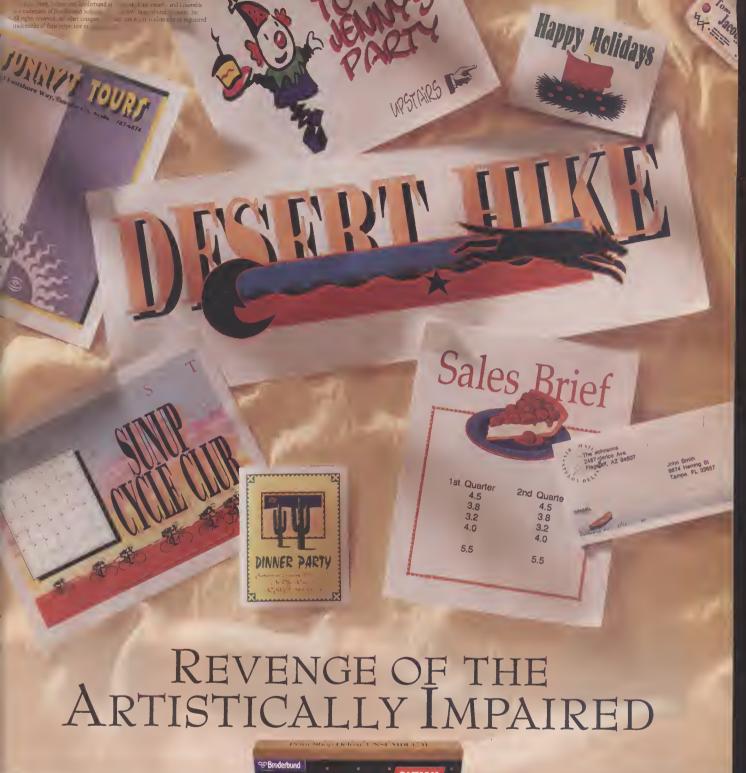
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AND BROWSE THE

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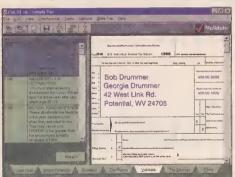
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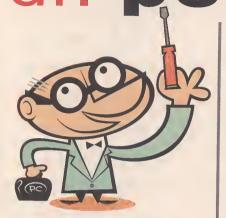
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ask dr. pc

Q I've been having problems with my computer ever since I replaced my video card with a model made by a dif-

Video card's a raw deal

ferent company. Neither card maker has been much help, and my PC's manufacturer has no idea what the problem is. Any clues about what I can do?

A Sounds like there may be a tug-of-war under way between the memory your computer is using to run your programs and the memory your new video card needs to work properly. The new card may require sections of memory to be set aside for its exclusive use from a block referred to as upper memory.

A computer's motherboard and many PC cards include a chip containing a set of specific instructions called a basic input/output system (BIOS). These chips are relatively slow in computer terms, so your operating system often copies BIOS information into your PC's upper memory, where the processor can find it more quickly.

But if your programs have been dipping into that same memory pool, they may overwrite the BIOS instructions and cause a host of errors, such as fuzzy screen images, error messages and program missteps. Check your video card documentation (or call the manufacturer) to see if you need to set aside memory for the card's use, and if so, find out how to set things up to satisfy its hunger for upper memory.

If memory allocation isn't the issue, your best bet is to take your PC to a repair shop. Yes, this will cost you some money, but look on

the bright side: At least you'll be able to stop wrestling with your computer and your apparently unresponsive vendors.

Q I recently upgraded the hard drive in my computer. Now, whenever it starts, I get a message that reads "Can't find C:\scdemo\sc.exe in win.ini (or one of its

New, but not improved

components)." What did I do wrong and how can I fix it?

A It sounds like the *sc.exe* program (or one of the files it needs) wasn't copied to your new hard drive during the upgrade. If you know what the *sc.exe* program is, reinstalling it should solve the problem you describe. But if you don't know what the program is and your PC is working OK, chances are you don't need it.

Even if you decide you don't need the program, Windows still thinks it does, and that's what's causing the error message. So you need to tell Windows to stop looking for it.

To do this, select Run from the pull-down File menu in Windows 3.1's Program Manager. A box will pop up asking you for the command you'd like Windows to run; type *win.ini* in the space allotted. (In Windows 95, you can get to the same box by clicking on the Start button and selecting Run from the pop-up menu.)

No matter what version of Windows you're using, the next steps are the same: You'll see a new window that lets you edit the *win.ini* file, which contains a list of programs that will run every time Windows starts. There'll be a line near the top of the file that begins with *load=* or *run=*, followed by *C:\scdemo\sc.exe*. This is the command that's causing your trouble;

it's telling Windows to try to run the *sc.exe* program every time you turn on your computer.

Delete the offending characters after the equal sign. If any other program names appear on the line, leave them as they are (there will be a space between the *C:\sc-demo\sc.exe* name and any other file names). When you're finished, make sure there are no spaces between the equal sign and any remaining program names, and only a single space between program listings if there are more than one on the line.
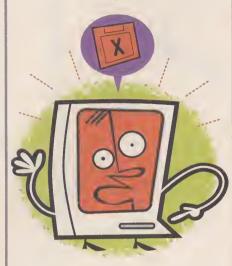
If *C:\scdemo\sc.exe* was the only file listed, you'll need to make sure there are no extra spaces following the equal sign. Use your arrow keys to move the cursor to the right margin, then use the backspace key to delete all the spaces until your cursor's right up against the equal sign (but don't delete that).

To save this settings file, select Save, then Exit, from the pull-down File menu. When you restart Windows, you should no longer see the error message.

Q When I open File Manager in Windows 3.1, I see a message that says I don't have a disk in my floppy drive—but

Floppy drive's running on empty

I'm not looking for files on my floppy drive. Can I do anything to make this message go away?

A Were you by any chance looking at a list of the files on a floppy disk recently? My guess is that you were, and then

you minimized the window for that drive, but you didn't close it when you were done. Even though that particular window may now be out of sight, Windows can't keep it out of mind because, technically, the window is still open. Each time File Manager loads, it dutifully tries to check the contents of the floppy drive so it can

update that window, resulting in the message you've been seeing.

To end this futile search, open File Manager and double-click on the drive icon marked C:\. Don't be concerned with the window you'll see next; it's what's behind the window that's been causing your grief. To get the C:\ window out of the way, place your cursor on the lower right-hand corner of the window (the cursor will turn into an arrow when you've hit the correct spot). Hold down the mouse button and drag that corner up toward the left-hand corner of your screen.

Once you've reduced the window size, you'll see an icon for the window in the lower left of your screen that displays the contents of your floppy drive, which is either A:\ or B:\. (If your view is obstructed by other windows depicting other drives, reduce their size as you did with the drive C:\ window above.)

Click once on the floppy-drive icon, and then select Close; File Manager will close that window—and you'll be spared those unnec-

essary updates on your floppy drive when you start your computer in the future.

Q Ever since I upgraded my PC to Windows 95, my

Win 95 says 'game over'

DOS games haven't worked properly. What's going on?

A Chances are that Windows 95 is using your old DOS CD-ROM drivers to access the CD-ROM drive instead of the new, 32-bit drivers that came with the operating system. And that can stack the deck against you when you sit down to play a DOS game like Aces Over Europe or Doom II.

During the Windows 95 upgrade process, many of the DOS and Windows hardware drivers (programs that let the operating system communicate with your hardware components) are replaced by faster, more efficient Windows 95 drivers. That process is designed to be an automatic part of the Windows 95 installation, but

in practice, some upgraders have found that not all the necessary drivers have been replaced. Often, it's the CD-ROM drivers that prove most troublesome.

Windows 3.1 programs generally run fine with older drivers, but DOS games have a lot of trouble.

Maybe your computer should be upgraded before you buy it.

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such as error messages and computer lockups. The solution is to upgrade to Windows 95 drivers, and the easiest way to do that is to contact the manufacturer of your CD-ROM drive, multimedia upgrade kit or PC, and obtain updated CD-ROM drivers for your particular hardware configuration. The manufacturer should also be able to give you instructions on installing the drivers.
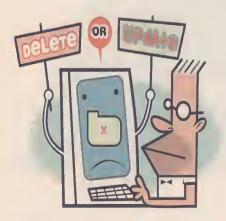
Q When I run the Microsoft Anti-Virus program, I sometimes see a

Have I nailed a bad file?

message indicating that a file has changed, and that I can either delete or update it. What should I do?

A It all depends on which file has been changed and what you've been doing with your system lately. Most virus software, including AntiVirus, takes an inventory of key system and program files, and when one changes, it lets you know about it. If the file in question is *system.ini*, *win.ini*, *auto-*

exec.bat or *config.sys* and you've recently installed or removed a program, odds are that everything's fine. You can feel confident telling AntiVirus to go ahead and update its records of the file.

But if the file that's changed isn't one of the four mentioned above, or if you haven't added or deleted any programs recently, you should use AntiVirus's Detect and Clean command to help you locate and cure any viruses possibly lurking in your PC.

By the way, it's time you upgraded your virus-protection software. AntiVirus shipped in versions of Windows that are now pretty long in the tooth, and there are plenty of new viruses running around that it doesn't know about. I'd advise you to safeguard your computer with a newer virus protection program, such as the latest from Symantec or McAfee.

Q Each time my friend uses her laser printer with WordPerfect, the printer's buffer light

Take laser signal lightly?

comes on. Is this a warning of some sort?

A Tell her to relax: The printer is operating properly. Unlike dot-matrix printers, which process pages character by character, laser printers treat each page as a single unit. To accomplish this, the printer needs to load the contents of an entire page into a storage area, known as a buffer, before it can print.

When the buffer light goes on or starts to blink, the printer's merely telling you it's loading a page of your document. Once the printer detects that it has a full page in its

buffer, it will spit out the page, and the buffer light will go out.

Q When I double-click on the 386 Enhanced icon in my Windows 3.1 Control

Must I remember this?

Panel, I see something called "Virtual Memory." What kind of memory is this?

A Virtual memory is just like virtual reality—it appears to be there, even though it's really not. In your case, the PC is using excess hard disk space to simulate additional computer memory when it runs out of the real thing.

Here's a quick primer on computer storage terms: Memory, the common term for random access memory (RAM), is where your computer keeps items that it's handling at a given time, most notably the key components of the programs you're currently running. Your computer stores items it doesn't need right away, such as files and programs you're not working with at the moment, on the hard disk.

Both RAM and hard disk space are measured in megabytes (MB), but there are big differences between them. One is access speed: It's much faster to pull something

A COUPLE OF THINGS TO CONSIDER
WHEN YOU BUY THAT NEW COMPUTER.

When you choose a computer system for your home, don't overlook the most obvious component: The monitor. Computer companies will frequently include a low-quality monitor. That might make a complete system easier to buy, but a lot harder to live with.

If you chose your monitor as carefully as the rest of your system, it would probably look like the Nokia 17" 447L multimedia monitor. With a diagonally-measured viewing area of 15.75", a .28 mm dot pitch flat square tube and maximum resolution of 1024 x 768 at a refresh rate of 75 Hz, the 447L is the caliber of display usually enjoyed by graphics professionals. In fact, Nokias have been named a

Nokia is Finland's largest multinotionol company, ond the leading brand of monitors in Europe.

Hame Office Computing Magazine Best Buy. The 447L feotures front panel salid-stote screen adjustments and sterea pawered speakers under the bezel—ideal for the multimedio softwore that is naw porticularly popular with fomilies. Which brings us ta the mast impartant cansideratian.

Children are spending hours with their yaung eyes just inches awoy fram manitors. Here the 447L shaws its reol value. Its emissions contral has earned Sweden's MPRII certificotian—one af the strictest standords in the warld. Its ergonamics reduce eyestroin and fotigue,

The overoge viewing distance of a camputer manitor is eighteen inches. Remember whot you learned obout sitting clase to the TV?

and demonstrate real user-sensitivity.*

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RESOLUTION	640x480	800x600	1024x768
447L — 17"	100Hz	85Hz	76Hz

The environmental values of Finlond (where the 447L is mode) are evident everywhere: From na CFCs or farmoldohyde in the moteriols (which eliminotes hormful gases)

Nokio mokes speokers for German luxury cors, so adding them to the 447L was eosy.

right dawn ta using recycled poper in the packaging. Not anly is the 447L friendlier ta users, it con even get alang with the decar in yaur hame—thonks to the EuroPolette™ choice af colors.

And with its suggested retail price af $699**, it wan't even disturb the fomily budget.

Sa when you buy your camputer system, laak ot the manitor with the eyes of a child. And the 447L will be your cleor choice. Coll 1.800.BY NOKIA far the location af the dealer nearest yau.

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MONITORS

from memory than to retrieve it from the hard disk. Another is cost: RAM typically sets you back about $40 per megabyte, while disk space averages a few pennies per megabyte.

When your operating system uses disk space as virtual memory to run a RAM-hungry program, it sets aside a chunk of unused disk space, often as much as 20 or 40 MB, and uses it to store active programs and data that it knows it needs to access infrequently (which to a computer might mean only once a second). Information it needs more often remains in RAM. The process of moving information back and forth between a PC's virtual and real memory is called "swapping."

For example, say your PC has 4 MB of RAM to load Windows, launch a program such as Microsoft Word, then open a large document file. To accomplish all these tasks, your computer would use the 4 MB of RAM, then swap an additional 10 or 15 MB of information out to virtual memory on the hard disk. Swapping lets your computer do what you asked, but it will be slow, since retrieving items from the hard drive takes longer than accessing items from memory.

If you want to increase the speed of your computer, you can do so easily by adding RAM. In our example above, increasing the amount of RAM to 16 MB could eliminate the need to swap data out to the disk, making performance quite snappy.

Q I just bought a Star Trek CD-ROM; the manufactur-

I can't see the CD-Romulans!

er says I need to boost my video memory from 512 KB to 1 MB to play it. Is that true?

A In order to boldly go where no one has gone before, you sometimes have to leave a bit of the past behind. In this case, the high-resolution graphics required by your Star Trek CD-ROM means that the best way to tag along on the voyages of the *Enterprise* crew is to upgrade your video memory.

Video memory is a chip on your video card that stores the graphics you see on your computer screen. The more elements—colors and pixels—that make up your screen images, the crisper those images will be. But the more elements you have—and the galaxies the *Enterprise* visits have plenty—the more storage capacity your video card needs, hence the upgrade advice.

Say you want to display 256 colors at a screen resolution of 1,024 by 768 pixels, which is a very crisp resolution. You'll need more than 786 KB of video memory. But with the 512 KB you currently have, the highest resolution you can possibly get with 256 colors is 800 by 600, which will look noticeably grainy.

So no, you don't absolutely *have* to upgrade, but if you don't, odds are you'll be disappointed when you see an *Enterprise* that's far from starship-shape.

Q None of my fonts show up in Microsoft Works

Fonts' Works stoppage

2.0, although they're available in all my other programs. Can you help?

A The problem is that you have too many fonts for Works 2.0 to handle. I'm guessing that you (or a program you installed) recently added fonts that exceed Works 2.0's capacity.

I can't tell you exactly how far the program's font capacity can stretch, because that figure is extremely variable, depending on factors ranging from the number of sizes and styles for each particular font to the length of your fonts' names (the shorter they are, the more fonts you'll fit). But since you've clearly got too many loaded on your system, I suggest you remove some of the fonts you rarely use, which will most likely solve your problem.

To remove the fonts, go into the Windows Control Panel and double-click on the Fonts icon to list all the fonts you've got. Select those you don't use, click on Remove, then on Yes to take them out of the

Windows roster (but don't delete the fonts from the disk). If you need all your fonts, it may be worth the $45 to $70 it costs to upgrade to a more recent version of Microsoft Works, which won't plague you with the problem you describe.

Q Each time I run Windows 3.1, all of my 27 program windows open. I'm

Windows sign: 'We never close'

tired of closing them only to have them re-open again. Is there a way to close the win-dows and keep them shut?

A Absolutely. In fact, the prob-lem you describe is quite common, and it can be solved very easily.
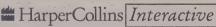
Whenever you turn off your computer, all the time you've just spent closing those windows and arranging your desktop comes to naught because you haven't in-structed Windows to save your current desktop environment.

All you need to do the next time you're working in Windows is set up your desktop just the way you like it, then go to the pull-down Options menu in Pro-gram Manager and take a look at the menu item labeled Save Set-tings on Exit. You'll see that there's no check mark next to this option, which explains why your settings haven't been carrying over from one computing session to the next.

To make sure your settings stay put from now on, simply select the Save Settings on Exit option. Then, if you drop down the Options menu again, you'll see a check mark next to that choice. And the next time you start Windows, your desktop should appear exactly as it did when you last exited it. ●

Dr. PC was assisted this month by Andy Feibus, Michele K. Hugel-meyer and Chris Oggerino.

Do you have a question for Dr. PC? You can mail it to Ask Dr. PC, HomePC, 600 Community Drive, Manhasset, NY 11030; phone it in to 800-DOC-IS-IN; fax it to (516) 562-7007; or post it to the doctor at HomePC on America Online.

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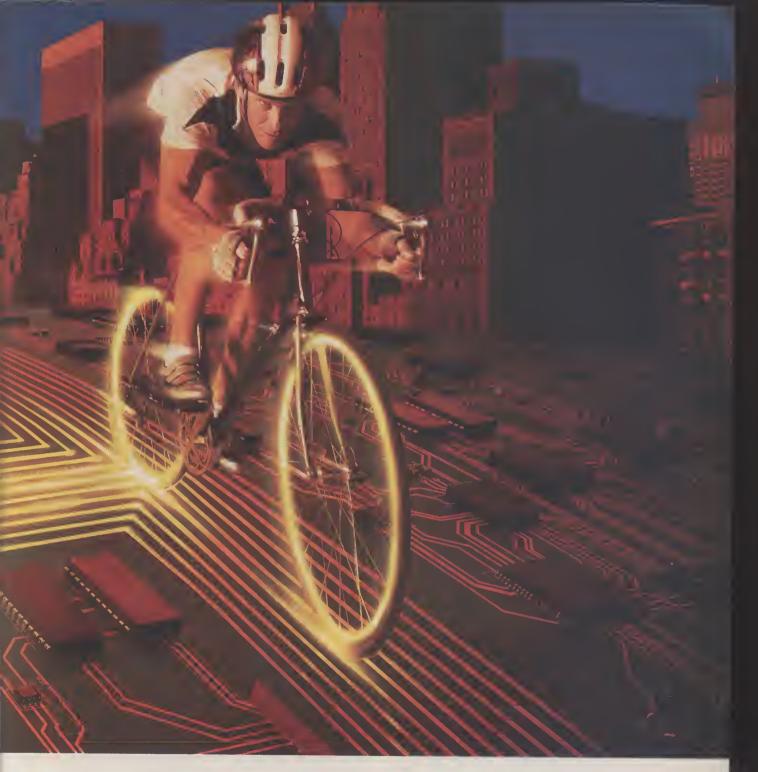
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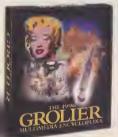
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hot Stuff!

Two lightweight contenders do some heavy roadwork

If you've got a heavyweight budget, two new members of the IBM ThinkPad family of notebook PCs, the 760C and 760CD ($5,349-$7,449), are ready to go a few rounds with desktop PCs. The fully loaded Pentium-based 760CD boasts a 1.2-gigabyte hard drive, 8 megabytes (MB) of RAM (which can be upgraded to 40 MB), a 12.1-inch display and a 28.8-Kbps modem. Other features include MPEG video, a tilting keyboard, and a quad-speed CD-ROM drive that can be removed in favor of a second lithium-ion battery or hard drive.

IBM, (800) 426-2968, (914) 765-1900. Circle #411

Hanks for the memories

Mama probably never knew the magic of multimedia, but she'd likely compare Forrest Gump—Music, Artists and Times ($39.95, Windows CD-ROM, Macintosh CD-ROM) to a box of chocolates anyway: You never know what you're going to get. You can choose from the music of the Gump era, video clips from the Oscar-winning film highlighting the tracks, vintage performance clips, interviews with many of the musicians (including Joan Baez, Jackson Browne and David Crosby) and background on the artists.

GTE Entertainment, (800) 483-8639, (619) 431-8801. Circle #412

Forrest Gump Music, Artists and Times

Help
Exit
◀ Disc 2
◀ Disc 3
Film Score
Hound Dog
Rebel Rouser
(I Don't Know Why) But I Do
Walk Right In
Blowin' in the Wind
I Can't Help Myself
Sloop John B.
Milestones
Film Script
Go Back

Anywhere I wander, anywhere I ROM

Designed for easy installation and operation, the CyberMan CD ($499.95, Windows) expertly delivers PC sound and video for people on the go. It's the first portable PCMCIA CD-ROM drive to comply with the MPC-2 standard, and you don't need to hook it up to a SCSI adapter or parallel-port interface. Just plug in the Type II PCMCIA card, load the self-installing software, and the double-speed CD-ROM drive is ready to support your favorite multimedia discs, complete with 16-bit wavetable sound. If you want a little traveling music, the CyberMan also plays audio CDs.

PacRim, (800) 453-7933, (602) 813-3288. Circle #413

Philharmonic convergence

Give Tchaikovsky's holiday-season classic a '90s spin with The Nutcracker Suite CD-ROM ($49.95, Windows, Macintosh). The animated adaptation features the Japan Philharmonic Symphony Orchestra, original art, a quiz, and six areas to explore, including The Story (the narrated tale accompanied by text), Read and Repeat (where kids can point-and-click on characters to hear them speak), and Explanation (background on the composer and his craft).

Dynaware, (800) 280-6108, (415) 696-8333. Circle #414

Giving games a depth charge

PC graphics take on an extra dimension with the 3D Blaster ($349, Windows, Windows 95) from Creative Labs, maker of the popular Sound Blaster sound cards. The 3D Blaster promises to bring arcade-style visuals to your computer screen. The Plug-and-Play-compatible add-in card enhances 486- and Pentium-based PCs that have a standard VESA Local Bus, and delivers 16-bit, 640-by-480 graphics for an exciting gaming environment. Want proof? Creative Labs invites you to start with the six showy CD-ROMs it includes in the kit.

Creative Labs, (800) 998-5227, (408) 428-6600. Circle #415

Stop working, and it's all downhill

The North American Ski Area Screen Saver ($19.95, Windows CD-ROM, Macintosh CD-ROM) provides hot shots of some of the continent's coolest ski areas. The disc features 25 resorts and delivers vital vacation information. Just click on any resort name on the Windows wallpaper to call up phone numbers, annual snow reports, mountain statistics and an Internet address. A printed version of the SkiData Guide comes with the software, or check out Cylogic's Internet site (*http://www.lucky-dog.com /skidata*) for instant links to the slopes.

Cylogic, (800) 295-6442, (206) 283-8800. Circle #416

Rolling thunder

The TrackMan Marble trackball ($99, Windows) puts reliability, performance and comfort in the palm of your hand. The trackball offers three programmable buttons, and its special sensing technology replaces the conventional system of rollers and wheels with a laser-like beam. The method is designed to improve precision and eliminate performance problems caused by dust and dirt. Available for serial or mouse ports, the TrackMan is also ready for Plug-and-Play.

Logitech, (800) 231-7717, (510) 795-8500. Circle #417

Read your CDs' on-liner notes

With Voyager CDLink, some of your favorite audio CDs become multimedia extravaganzas. At the Web site *http://www.voyagerco.com/cdlink*, you can merge text and images with your music. Scan the site for titles and artists in your CD collection—there's an eclectic list waiting for you, including John Coltrane, the Beatles and Nirvana—then pop your chosen disc into your CD-ROM drive. Click on the title listed on screen, and let the music play—along with funky graphics, liner notes keyed to specific passages, and other enhancements.

Voyager, (800) 446-2001, (212) 431-5199. Circle #418

I saw a shootin star tonight,

Interplanetary craft

The sun, the moon and the stars are all made more down-to-earth in Isaac Asimov's Library of the Universe ($39.95 for the seven-disc series, $14.95 each; Windows, Macintosh). The CD-ROMs explore theories popularized by Asimov, considered by many to be the father of science fiction, in his numerous writings. There's plenty that's novel—and factual—about the topics covered here, which include supernovas, asteroids and the planetary path of Voyager 2. Taken together, the multimedia exploration leaves no moon rock unturned.

Zane Publishing, (800) 769-3723, (214) 746-5555. Circle #419

A notebook add-on (literally)

Entering numerical data is tedious enough, but it's worse if you're using a notebook PC that has numbers only above the alphabet keys. Two new keypads are made to alleviate number-crunching cramps: The Micropad 627 ($85, Windows) connects to your PC's serial port; its pass-through interface lets you run a second serial device—say, a mouse—at the same time. The AddPoint ($120, Windows; $128, Macintosh) features the same keypad, plus a Glide-Point touchpad for easy cursor movement.

Genovation, (800) 822-4333, (714) 833-3355. Circle #420 ●

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best buys

super values for savvy shoppers

BY JENNIFER TRIVERIO

Call it Good Mousekeeping

"Expert Selected, Kid Tested, and Parent Approved." That's the promise KidSoft makes for KidSoft Select, a series of children's CD-ROM favorites now priced at just $12.99 each.

The first batch of KidSoft Select titles, which are presented under the *Good Housekeeping* magazine banner, includes previously released Windows 3.1 and DOS programs from a variety of manufacturers. Each disc meets standards for quality and entertainment and educational value; all programs chosen for the series were evaluated by a select panel of teachers, kids and parents, who believe children not only will love the software, but will learn from it, too.

The inaugural list of 35 titles, sold exclusively in software and toy stores, includes Bug Adventure, Gus Goes to Cybertown and The Incredible Toon Machine.

KidSoft, (800) 354-6150, (408) 255-3434. Circle #404

Net worth: shop (and save) on-line

Everyone loves a bargain this time of year—it's the crowds we could do without. To skip the fevered frenzy of one-day sales but still get deep discounts, don't stand in line; go on-line instead.

Shopping on the Internet and Beyond! ($19.99) will help you sniff out savings on everything from perfume (can you turn up your nose at 40 percent off Shalimar?) to coffee (check out steaming deals on Amaretto Royale and Viennese Cinnamon at The Baltimore Coffee & Tea Company). The 1,000 entries feature company and product descriptions, electronic addresses, and price ranges (including shipping fees).

The guide even offers a few bargains of its own: "Exclusive Deal" coupons worth more than $3,000 are scattered throughout, making it the definitive handbook for cybermall-rats around the world.

The Coriolis Group, (800) 410-0192, (602) 483-0192. Circle #405
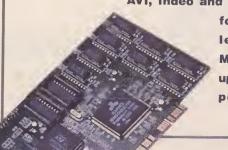
Bargain Matinee shows PC movies

If you love big-screen entertainment, $199 will get you into the Matinee—a 64-bit PCI multimedia-accelerator card that provides sizzling graphics and full-motion, VCR-quality video.

Matinee supports MPEG, AVI, Indeo and CinePak video formats, and it lets you view MPEG videos at up to 30 frames per second (a

December 1995 HOMEPC 99

Pentium processor is recommended for the smoothest playback), with options to resize the picture and zoom in and out. The card holds 1 megabyte (MB) of DRAM (upgradable to 2 MB).

You can check out your PC's enhanced performance with an included CD-ROM, which features Multimedia Shakespeare: As You Like It and Multimedia Space Explorer.

Alaris, (800) 317-2348, (510) 770-5700. Circle #406

$99 makes Power Mac chipper

Power Macintosh owners who feel a need for more speed but don't want to cash in their chips might find an affordable answer in Speed Doubler.

Developed by Connectix, which makes the popular memory enhancer RAM Doubler, Speed Doubler ($99) emulates a processor upgrade, but delivers its benefits at a much lower price.

The Speed Doubler examines how your Power Mac uses its RAM and allocates a share for the disk cache, where RAM is set aside to store information recently read from the hard drive. If the data is needed again, it's retrieved from the RAM much more quickly than it would be from the hard drive.

The Speed Doubler emulator also acts like a 680X0 processor, helping older programs—which tend to be sluggish on the Power Mac—run with more pep. And it accelerates the Mac's Finder feature, letting you copy several files at once, or

Top of the Charts

The best-selling software for multimedia PCs and Macintosh systems

Education

1. **Mavis Beacon Teaches Typing**
....*Mindscape*
2. **Math Blaster: In Search of Spot**
....*Davidson*
3. **Disney's Animated StoryBook: The Lion King**
....*Disney Interactive*
4. **SimTown***
....*Maxis*
5. **3 Ft. 6 Pak**
....*Sirius Publishing*
6. **Reader Rabbit 1**
...............................*The Learning Company*
7. **Where in the World Is Carmen Sandiego?**
....*Broderbund Software*
8. **BodyWorks***
...............................*Softkey International*
9. **The Aladdin Activity Center**
...............................*Disney Interactive*
10. **Fun To Learn***
....*MicroMart*

Games

1. **MechWarrior 2**
....*Activision*
2. **Flight Simulator**
....*Microsoft*
3. **Myst**
....*Broderbund Software*
4. **Phantasmagoria***
....*Sierra On-Line*
5. **NASCAR Racing**
...............................*Virgin Interactive*
6. **Ultimate Doom Thy Flesh**
...............................*GT Interactive*
7. **Dark Forces**
....*LucasArts*
8. **Star Trek: The Next Generation "A Final Unity"**
...............................*Spectrum HoloByte*
9. **Doom II**
...............................*GT Interactive*
10. **Links Pro***
....*Access*

Personal productivity

1. **Quicken CD-ROM for Windows**
....*Intuit*
2. **Quicken Deluxe CD-ROM for Windows**
....*Intuit*
3. **Print Shop Deluxe CD Ensemble**
...............................*Broderbund Software*
4. **Publisher**
....*Microsoft*
5. **Quicken Family Lawyer**
....*Intuit*
6. **3-D Home Architect***
...............................*Broderbund Software*
7. **Street Atlas USA**
...............................*DeLorme Mapping*
8. **PrintMaster Gold CD Bonus Pack**
....*Micrologic*
9. **Automap Road Atlas***
....*Microsoft*
10. **Family Tree Maker Deluxe**
...............................*Banner Blue Software*

Source: PC Data (for August 1995)   **First time on charts*

single files in half the usual time. **Connectix, (800) 950-5880, (415) 571-5100. Circle #407**

OS/2 users deserve a break today

Who says it's no fun using OS/2 Warp these days? Sure, the PC operating system lags far behind Windows in sales and software developers' attention—all the more reason for IBM to give the folks who like the system a break. Enter the OS/2 Warp Family FunPak CD-ROM, which packs 12 diverting OS/2 programs on one disc for only $49.95.

Entertainment, reference, education and finance titles join perennial favorites SimCity and Blackjack on the CD-ROM. You'll also find In Charge at Home, a finance manager; Magic Canvas, a children's paint program; the American Heritage Dictionary, with more than 50,000 words; and Rapid Assault, an arcade-style game.

IBM, (800) 426-3333, (914) 765-1900. Circle #408

Free vaccine for Windows 95 virus

Before you install Windows 95 on your PC, you can save yourself potential grief by taking advantage of a free anti-virus scan utility from Symantec, maker of the best-selling Norton Antivirus utility.

Microsoft has confirmed that "Install Disk #2," which is part of the floppy-disk version of Windows 95, can become cor-

Top of the Charts

CD-ROM
1. **Windows 95 Upgrade*** ....*Microsoft*
2. **Microsoft Plus*** ....*Microsoft*
3. **MechWarrior 2** ....*Activision*
4. **Myst** ....*Broderbund Software*
5. **Dark Forces** ....*LucasArts*
6. **Phantasmagoria*** ....*Sierra On-Line*
7. **Flight Simulator** ....*Microsoft*
8. **NASCAR Racing** ....*Virgin Interactive*
9. **Star Trek: The Next Generation "A Final Unity"** ....*Spectrum HoloByte*
10. **Ultimate Doom Thy Flesh** ....*GT Interactive*

Macintosh education
1. **Disney's Animated StoryBook: The Lion King** ....*Disney Interactive*
2. **Buried in Time** ....*Sanctuary Woods*
3. **SimTown** ....*Maxis*
4. **Kid Pix Studio** ....*Broderbund Software*
5. **Where in the World Is Carmen Sandiego?** ....*Broderbund Software*
6. **Mario Teaches Typing** ....*Interplay*
7. **The Aladdin Activity Center** ....*Disney Interactive*
8. **The Way Things Work** ....*DK Multimedia*
9. **A.D.A.M. The Inside Story** ...................................*A.D.A.M. Software*
10. **BodyWorks*** ....*Softkey International*

Macintosh games
1. **Dungeon Master II*** ....*Interplay*
2. **Doom II*** ....*GT Interactive*
3. **Dark Forces** ....*LucasArts*
4. **Myst** ....*Broderbund Software*
5. **Top Ten Pak** ....*Electronic Arts*

Macintosh personal productivity
1. **3000 Mega Clip Art Pack** ....*Nova Development*
2. **Quicken** ....*Intuit*
3. **1500 Font Mega Pack** ....*Interplay*
4. **Print Shop Deluxe CD Ensemble** ....*Broderbund Software*
5. **Print Shop Deluxe** ....*Broderbund Software*

Source: PC Data (for August 1995)   **First time on charts*
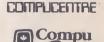
rupted during installation on computers that have been infected with a boot-sector virus. Although the virus doesn't seem to be widespread or particularly destructive, it does render the floppy disk useless; you must then mail the damaged disk back to Microsoft to be replaced. But if you don't get rid of the virus, the replacement disk is just as vulnerable to attack as the original disk.

Symantec offers the scan on its bulletin board (503-484-6699), its Internet *ftp* site (*ftp.symantec.com*), and in its forums on commercial on-line services including America Online, CompuServe and The Microsoft Network. Look for the file named *narscanz.exe*; it takes just a few minutes to download the file and let it scan your PC. You've got nothing to lose—except one potential nuisance in your Windows 95 upgrade.

Symantec, (800) 441-7234, (408) 253-9600. Circle #409

A low price to reach hired ground

Anyone who's hunting for a job soon learns that a well-organized, eye-catching résumé and cover letter can get you in the door, while sharp interview skills can help you land the job. Now, thanks to the updated ResumeMaker Deluxe ($39.95, Windows CD-ROM), your PC can show you how to put your best foot forward—without forking over your first month's salary to do it.

The opening screen, which looks like a career counseling office, leads you to more than 200 sample résumés and cover letters for positions from salesperson to schoolteacher, as well as thank-you and follow-up notes. The career planner is designed to assess your abilities and style, then match your talents with one or more of the 3,000 jobs described in the program.

Once you've made up your mind about where to apply, the **Winning Edge Workshop** exercises your communication skills; you'll field common interview questions, see interviewing do's and don'ts, practice salary negotiation, and review tips on job hunting and career planning.

Once you've got a career goal and a desk full of classified ads, employ the **Contact Manager** section to sort through the clutter—it can help you schedule interviews, maintain a database of company names and addresses, and more.

Individual Software, (800) 331-3313, (510) 734-6767. Circle #410 ●

Lots.
Tons. Bunches.
(Somewhere in these 9,000 software titles, could someone please find the thesaurus?)

It's good to know that the computer that takes you to the moon or the depths of the Pacific can also help you navigate the October sales forecast. Pictured here, the Performa® 6200.

Running software on a Macintosh. As easy as 1,2,3.

Many Macintosh computers come with an integrated CD-ROM drive and all the basic software pre-installed. Right out of the box, you can run all sorts of exciting multimedia titles and other software – and get on the Internet, no problem. Plus, all the software designed for the Mac basically works the same way. So whether you're looking for

How much data can fit on one CD-ROM? 650 megabytes. Much more than a thesaurus. Even more than a whole set of encyclopedias. A large amount, indeed.

You can find everything you could ever want in the veritable plethora, the myriad, the more-than-ample amounts of software for Macintosh® computers – including the exact right word.

Lots of software. Almost more than you can count. (Unless you use one of the 220 math titles.)

Multimedia entertainment titles. Games. Reference titles chock-full of information. Powerful home office programs for the entrepreneur. And if you're looking for a way to bring learning home, you should know that the Macintosh is in more schools than any other computer. So lots of educational programs are developed for the Mac,™ and not Windows.

Carmen Sandiego™ or trying to locate another word for "a large amount," you're dealing with the same intuitive user-friendly interface. To see a few of the diverse software titles available for the Mac, turn the page. And put the power of the world's easiest computer to work for your family. The power to be your best.®

Macintosh
You, a Mac, the world.

We've made saving on software easier than ever.

Thumb through the following pages and you'll see some of the most popular software titles available for your Apple® Macintosh® Performa® computer. Look closely, and you'll quickly discover that you can bring home a bargain on each and every one of them this holiday season.

All of the titles inside include mail-in rebates, premium offers, or special deals that are good on purchases you make at retail.* So after browsing through the titles inside (or the complete listing online), simply stop by your local authorized Apple retailer. After all, shopping at your Apple retailer is the best way to get the software you want today—and the only way to take advantage of the deals inside! Check out the back of this special advertising section for the name of one near you.

How can you bring home a bargain?

Once you've purchased your favorite titles, complete and return the redemption coupon near the back of this special advertising section along with your proof(s) of purchase.

Why not jump inside and take a look around?

We're sure you'll find the software you're looking for, and probably discover a few new ones along the way. To help you quickly identify software features you may be looking for, watch for these symbols:

NEW! New product   *n* Power Macintosh®-native application

NEW VERSION Update or upgrade with new features and functionality

Each of the software titles inside is placed into categories, so it's quick and easy to find exactly what you're looking for.

Home Learning

These education titles are so much fun, your kids will get excited about learning!

Lifestyle/Reference

Everything you ever wanted to know about travel, cooking, gardening, home improvements, and more!

Home Entertainment

Take a look at what's hot and what's cool in home entertainment with the latest in multimedia CD-ROMs and software games.

Home Office

Whether you run a business out of your home or simply want to manage your personal finances, you'll get it all done with time to spare using these productivity solutions.

Want to know more?

A complete listing of deals on more than 100 software titles will be available online starting November 1. Point your web browser to **http://www.consumer.apple.com.** Or stop by eWorld,™ Apple's own online community; use the shortcut "ACC" then click the "Apple Expo" button.

Mac™ OS   While you're shopping, be sure to look for the Mac OS symbol. Software packages (as well as printers and other peripherals) bearing this mark run on the Mac OS, the friendliest operating system in the world, found in Macintosh and all Mac-compatible computers.

*All offers good only in the United States and for purchases made at retail Nov. 1, 1995, through Jan. 31, 1996. Please allow eight to ten weeks for delivery. Complete terms and conditions are on the redemption coupon at the back of this special advertising section.

Active Mind Series *by Brøderbund*

NEW!

$10 REBATE on your purchase of an Active Mind Series title.

A world where learning comes to life.

The Active Mind Series™ is an innovative line of educational software that motivates children to develop essential learning skills. The Playroom® provides children ages 3–6 with an enjoyable introduction to letters and numbers. James Discovers Math™ introduces kids ages 3–6 to basic math through 10 skill-building activities. Math Workshop™ makes it fun for children ages 6–10 to practice and improve computation and problem-solving skills. Dynamic learning environments rich in graphics, sound, and animation fuel children's imaginations and broaden their knowledge.

▸ Encourages active learning
▸ Developed in conjunction with educational specialists
▸ Provides progressive levels of challenge and hours of learning fun

Technology & Learning Award of Excellence, 1990
Seal of Approval from the National Parenting Center, 1991

Sesame Street: Let's Make a Word! *by Creative Wonders*

NEW!

Championing early reading skills.

After preschoolers learn their letters, they're ready for Let's Make a Word!™ Children ages 3–6 join their favorite Sesame Street® characters on the set of the "Let's Make a Word!" game show, hosted by the lovable Guy Smiley, to create 24 different word activity combinations. Kids choose from six different Muppet "word experts"—who each play a unique game—and four different environments—where they'll develop early reading skills.

▸ Provides motivation and positive feedback
▸ Animation, original music, authentic character voices, and Sesame Street humor enhance game play
▸ The most popular children's educational title

FREE software!

Opening screen to the "Let's Make a Word!" game show—starring Guy Smiley.

Receive Sesame Street Numbers ($39 value) with your Sesame Street: Let's Make a Word proof of purchase. Offer requires $4.95 shipping and handling. Make check or money order payable to TPI Promotional Marketing. Limit one product per customer.

Kid Works Deluxe *by Davidson & Associates, Inc.*

NEW!

Build your child's creative skills.

Kid Works Deluxe™ is the all-new way for children ages 4–9 to maximize their creativity and imagination through writing and painting. Combining a word-processor and full-feature paint program into one kit, Kid Works Deluxe helps kids create their very own illustrated stories, poems, journals, and more. The program will even read their stories aloud, in a variety of fun voices or in the child's own voice!

▸ Create multimedia projects with words, pictures, and sounds
▸ Includes over 650 images and 100 sound effects
▸ Printable color illustrations and stories

Cool central interface provides easy access to all tools.

$5 REBATE on your Kid Works Deluxe purchase.

The Way Things Work *by DK Multimedia*

NEW!

A "mammoth" guide to machines.

The Way Things Work is based on David Macaulay's best-selling book, which has sold more than three million copies. This multimedia masterpiece describes 200 machines in detail and also includes a "Who's Who of Inventors," an "Inventor's Workshop," and 20 humorous "Mammoth Movies" starring David Macaulay's famous woolly mammoth. Appropriate for ages 8 and up.

▸ Over 1,500 screens and pop-up windows
▸ More than 280 animations

SPA Codies Excellence in Software Award — Critic's Choice, 1995
Best Software for Children — Oppenheim Toy Portfolio

$5 REBATE on your The Way Things Work purchase.

Dr. Seuss's ABC *by Living Books*

Dr. Seuss's extraordinary world comes to life.

"A" is for amazing alphabet. "B" is for beginning readers. "C" is for clicking on curious characters. The magic of Dr. Seuss's Beginner Book comes to life in this new addition to the popular Living Books® line of interactive stories on CD-ROM. More than 500 alphabetically inspired surprises, hidden within 26 pages, help children make the connection between words and sounds. Children ages 3–7 love to learn with the distinctive Seuss style of humor, rhyme, and animation.

$10 REBATE

- Dr. Seuss's Original Beginner Book included
- ABC Song sing-along included
- Soundtrack plays on home audio CD players
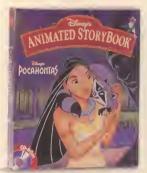
Rebate valid for purchase of another Living Book title when you purchase Dr. Seuss's ABC (coupon in box).

Children can learn many words that begin with the letter "A" on the "A" page of Dr. Seuss's ABC.

Offer Code 100

Pocahontas Animated Storybook *by Disney Interactive*

A story waiting for you to make it happen.

Children ages 3–8 enter Pocahontas' world and share her adventures, as she romps with Meeko and Flit and boldly saves Captain John Smith. Quality animation, created by Disney's Feature Animation artists, adds to the realism as children explore Native American and settler communities, a 17th-century sailing ship, and other beautiful environments.

The story is enhanced by four challenging games that build essential thinking skills, multiple playing levels to challenge new and experienced players, surprise animation for kids to discover on every page, and an Action Dictionary that lets kids see words defined with amusing animation.

- Relive the story at your own pace
- Interact with your favorite characters
- Click on words or pictures to discover surprise animations

FREE mouse pad!

Receive a Pocahontas mouse pad with your Pocahontas Animated Storybook proof of purchase. Limit one free mouse pad per customer.

Oregon Trail II *by MECC*

Challenge the unpredictable Western frontier.

The perennial favorite of kids nationwide is now even better! Oregon Trail II is an award-winning interactive, multimedia virtual adventure that lets kids ages 10 and up become pioneers traveling westward through time. Set from 1840–1860, Oregon Trail II features three action-packed levels of play, digitized characters that offer advice, 3-D rendered towns and forts, video clips that provide users with a sense of the trail, realistic hunting for survival, and more. Give your kids an action-packed adventure of a lifetime.

FREE video!

- Develops problem-solving and critical-thinking skills
- Over 5,000 photo-realistic images
- Long playability

Receive "West to Oregon" video ($29.95 value) in box with your Oregon Trail II purchase.

Offer Code 110

WiggleWorks *by Apple Home Learning*

Makes learning to read and write fun.

WiggleWorks™ is the classroom-proven software that's made it fun for thousands of children ages 3–8 to learn to read and write. It stimulates children's creativity while it teaches basic skills. Designed in partnership with Scholastic Inc., the leading educational publisher, it builds confidence at home—so kids have a head start in school. Its colorful characters and stories involve children and sustain their curiosity about words. And each story pack contains three stories, as well as activities that hold children's attention.
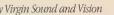
- Helps kids learn the basics of reading and writing
- Fun activities expand kids' creativity
- Lets children work at their own pace

Awarded 3 stars — *Home PC*, 1995
Silver Apple Award, Multimedia Category — National Educational Media Network, 1995
Editors' Choice Award — *Newsweek*, 1995

$5 REBATE on your WiggleWorks purchase.

Get Ready For School, Charlie Brown! *by Virgin Sound and Vision*

NEW!

An interactive Peanuts learning adventure.

Spend a fun-filled school day learning new words, spelling, and reading! Kids ages 4–8 enjoy classic television-style animation and original character voices as they learn through real-life situations and environments. Games and activities bring Snoopy's 1,000-word interactive picture dictionary to life, and kids can use Snoopy's dictionary to look up words found in the games. The dictionary includes definitions and sample sentences read aloud by your favorite characters, plus over 1,000 classic comic strips created by Charles M. Schulz.

▸ Vocabulary words, compiled by educators
▸ Seven fun learning games and real-life environments reinforce learning
▸ Three difficulty levels

FREE video!

Help Snoopy conquer his writer's block by choosing words for 15 stories.

Receive a Peanuts video ('9.99 value) **In box when you purchase Get Ready For School, Charlie Brown!**

Offer Code 120

Where's Waldo? At The Circus *by WarnerActive*

NEW!

Kids learn with the greatest of ease.
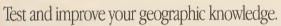
Waldo's unique search-and-find approach teaches your child basic problem-solving skills using mathematical concepts. Señor Piccalilli, the Circus Ringmaster, needs your child's help in finding Waldo. Piccalilli, Waldo, and your child must save the big circus show by finding the ringmaster's magic golden whistle. After children find Waldo, they embark on a journey filled with fun and challenging learning exercises in different circus areas. As each area is completed, Waldo and your child collect the clues that will locate the missing whistle and save the circus!

▸ More than 20 educational exercises, each featuring five levels of difficulty, for ages 4–9
▸ Variable outcomes in all key areas
▸ Captivating animation and brilliant 256-color graphics

FREE book!

Receive a Waldo activity book ('3.95 value) **with your Where's Waldo? At The Circus proof of purchase.**

Offer Code 115

GeoBee *by The National Geographic Society*

NEW!

Test and improve your geographic knowledge.

Everyone's buzzing about GeoBee™—the new software game from The National Geographic Society. Featuring brain teasers drawn from the giant database of questions from the National Geography Bee, GeoBee brings all the fun, and nail-biting tension, of that national contest to your computer screen. Introduced by Alex Trebek, host and moderator of TV's "Jeopardy!," the game tests the geographic knowledge of up to four players at a time. Players must advance through three levels of difficulty to win the game. GeoBee's thousands of questions cover all aspects of world geography.

▸ Features over 3,000 questions
▸ Designed for up to four players, ages 10 and up

FREE software!

Receive ZIPZAPMAP! USA ('39.95 value) **with your GeoBee proof of purchase.**

Lifestyle / Reference

Offer Code 165

The Beer Hunter *by Discovery Channel Multimedia*

NEW!

Serving the beer connoisseur.

Join the North American beer renaissance with renowned English beer expert Michael Jackson. The Beer Hunter highlights the richness and diversity of the recent micro brewery revival in the United States, putting a wealth of information at the beer enthusiast's fingertips. Learn what qualities distinguish Michael Jackson's 24 favorite American beers and ales in MJ's Top 24 list. Search for brews by region, style, fermentation, color, and taste. The Beer Hunter also includes a section on the art of brewing, with tips on ingredients, equipment, and procedures needed for making great beer at home.
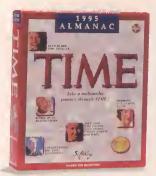
▸ Authoritative history of the art of brewing in text, photographs, and video clips
▸ Complete guide to U.S. micro breweries
▸ Includes Michael Jackson's top 24 brews, and where to find them
▸ Printable lists of recommended favorites to take on beer hunts

FREE software sampler!

Receive a software sampler ('9.99 value) **with your The Beer Hunter proof of purchase.**

Offer Code 184

Our Times Multimedia Encyclopedia Of The 20th Century *by Vicarious, Inc.*

NEW!

Live and relive the defining moments of our times.

Narrated by the captivating James Earl Jones, Our Times™ is the fun and fascinating way to learn about 20th-century world affairs, science and technology, politics, sports, cultural trends, and art. Based on the best-selling book—and cross-referenced with *The Columbia Encyclopedia, Fifth Edition*—Our Times provides information on topics both within and beyond the 20th century. A robust search engine and over 65,000 hypertext links provide easy access to vast amounts of information. With over 52,000 articles, eight million words, 2,500 images, charts, maps and graphs, 120 minutes of narration, and in-depth video documentaries, Our Times is the ideal reference source.

- Kids will be immersed in 20th-century history
- Students can easily access information to create reports
- Families come together to live and relive the 20th century

$10 REBATE on your Our Times purchase.

The visually interactive timeline is always available for ready access to each decade and year.

Offer Code 170

Home Repair Encyclopedia *by Books That Work*

NEW!

Meet your interactive handyman.

Home Repair Encyclopedia gives you the confidence to tackle do-it-yourself projects—while saving time and money! Built with multimedia guides and detailed instructions to keep your home running smoothly, it features built-in software calculators that take the guesswork out of selecting and estimating your building materials. It also offers expert advice, helpful hints, detailed reference guides, illustrated animations, and diagrams, as well as cross-linked explanations.

- Detailed explanations and instructions, illustrated with animations
- Includes tips from the pros
- Powerful search feature lets you find answers quickly

Detailed instructions help you keep your home in shape.

$5 REBATE on your Home Repair Encyclopedia purchase.

Home Entertainment

Offer Code 210

Marathon 2: Durandal *by Bungie Software*

NEW!

The captivating adventure continues.

The designers of the award-winning action adventure game Marathon have unleashed their most stunning creation yet, Marathon 2: Durandal. Fresh from your triumph on the starship Marathon, you are seized by the rogue computer Durandal and forced to do his bidding in a distant part of the galaxy. Within the ruins of an ancient civilization, you must seek the remnants of a lost clan and uncover their long-buried secrets. Whether you choose first-person action or network play, the outdoor and underwater environments, ambient sounds, and widescreen format will immerse you in the action.

- Networkable for up to eight players
- Environments, sounds, and widescreen format place you in the middle of the action

FREE poster!

Receive a Marathon poster ($10 value) with your Marathon 2 proof of purchase.

Offer Code 189

Absolute Zero *by Domark Software, Inc.*

NEW VERSION

Forget winning; think survival.

An alien invasion from the once-dormant core of Europa has instantly transformed your peaceful mining colony into a war zone. In order to mount a defense, you must first figure out how to convert your mining machinery—hovercraft, maglocks, fuel stations, and more—into weapons of war. Fly up to 30 missions in three different arenas of war: space, surface, and subterranean areas. To conquer the attacking aliens, you'll have seven characters, seven vehicles, and 13 weapons systems at your disposal. Now, it's just a matter of surviving.

- Full-motion video sequences and interactive CD soundtrack
- Over 70 texture-mapped active objects on-screen simultaneously
- Fly and drive seven different vehicles with 13 different weapons systems

$10 REBATE when you purchase both Tank Commander and Absolute Zero.

Think quick! Your colony's being attacked.

To get your hot deals, see the Redemption Coupon near the back of this special advertising section.

Home Entertainment

Al Unser, Jr. Arcade Racing *by Mindscape*

NEW!

This is no Sunday drive in the country.

Feel the need for speed? Well, you're in for the white-knuckle ride of your life! Circle the track alone, feeling out your car. Then blast into Competition mode, where you're suddenly up against 10 of the most cunning drivers around. They'll instinctively respond to your car's every move as you race them over 15 different courses at raging speeds.

▸ Play over a network in Duel mode
▸ Race in four turbo-powered modes
▸ 15 challenging courses

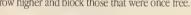*You're in the driver's seat, racing against 10 of the top drivers around.*

$5 REBATE on your Al Unser, Jr. Arcade Racing purchase.

Shanghai: Great Moments *by Activision*

The tile-matching obsession returns.

Classic Shanghai® returns, with three new games. In Beijing, you must slide rows of tiles to make a match, but be careful—one wrong match and a triple-scoring move disappears. At The Great Wall, it's you against a wall of tiles, snapping pairs off to dismantle its mighty structure—while gravity holds true, and tiles fall as lower ones are removed. Action Shanghai dares you to clear the screen before additional tiles appear. Speed is a factor, as stacks of tiles grow higher and block those that were once free.

▸ Themed video clips, animations, speech, and sound effects
▸ Nine interchangeable tile sets
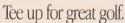▸ Play in solitaire, two-player, or tournament mode

FREE software!

Receive Sargon V ($24.95 value) **with your Shanghai: Great Moments proof of purchase.** Offer requires $5.95 shipping and handling. Make check or money order payable to Activision.
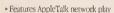
Links Pro CD Macintosh *by Access Software*

NEW!

Tee up for great golf.

From tee to green, Links Pro CD Macintosh is unrivaled in recreating the true golfing experience. It's Power Macintosh compatible for faster game play, and it features AppleTalk network play—so you can golf with up to seven other players. Two world-class golf courses, Harbour Town Golf Links and Banff Springs, have been reproduced in painstaking detail—you'll feel as if you're actually there! Simulated aerial fly-bys, golf tips, digital music, and a "comic caddie" option all help make your desktop golfing experience complete.

▸ Features AppleTalk network play
▸ Voice recognition
▸ New sound options

Codies Award, Best Sports Game — Software Publishers' Association
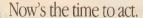Hall of Fame — *Computer Gaming World*

One of the many beautifully rendered golf courses available.

FREE software!

Receive Bountiful Golf Club Course CD-ROM ($29.95 value) **with your Links Pro CD-ROM proof of purchase.**

Buried In Time: The Journeyman Project II *by Sanctuary Woods*

NEW!

Now's the time to act.

Travel through time as Agent 5, searching for clues—in both past and future worlds—in order to avoid being framed for a crime you didn't commit. The long awaited sequel to the hit The Journeyman Project TURBO, Buried in Time is an epic graphic adventure that uses the latest technology to incorporate live-action video, 3-D animation, and an original stereo soundtrack to create an engaging and realistic cinematic experience.

▸ Over 25,000 rendered images
▸ Captivating original soundtrack and effects
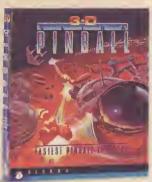▸ Vivid live-action video sequences and 3-D environments

INVISION Gold Award for Best Animation — *New Media*, 1995
INVISION Bronze Award for Story & Script — *New Media*, 1995

$10 REBATE on your Buried in Time purchase.

Immerse yourself in exploration of seven photo-realistic worlds.

Offer Code 213

3-D Ultra Pinball *by Sierra On-Line*

Play outside the limits.

Snap back the plunger, then let it rip. Send your pinball to three out-of-this-world play fields: a cavernous space mine, a gritty command post, and The Colony—the mother of all manic action pinball tables. Bank the right sequence of shots and you'll be able to warp between tables, taking the pinballs you have in play along with you. Feel the friction of the flippers as you play 3-D ramps and bumpers so huge, so intense, they pull traditional pinball kicking and screaming to a higher level.

- Authentic incline and realistic gameplay
- Non-scrolling tables
- Stunning 3-D graphics and realistic sound effects

Ultra-fast multi-ball play puts you into the play field.

Buy 2, get 1 FREE!

Purchase 3-D Ultra Pinball plus either Space Quest 6 or The Lost Mind of Dr. Brain, and receive Lode Runner ($49.95 value) free.
Offer requires $4.95 shipping and handling. Make check or money order payable to Sierra On-Line.

Home Office

Home Office Collection for Macintosh Performa *by Claris*

NEW!

Get your home office organized and productive in no time.

Start up your home office right with Apple Home Office Collection for Macintosh Performa. This value-packed bundle includes powerful applications to help you be more productive with all your home business computing tasks. You'll make the most of your time using versatile Claris® Organizer® new Claris Emailer,™ time-saving templates for ClarisWorks® and ready-to-use business solutions based on best-selling FileMaker® Pro. Then with all the time you save, you can spend it enjoying one of two exciting interactive adventures: Wild Africa or The Journeyman Project TURBO.

- Save valuable time with four productivity software solutions
- Relax and unwind with two exciting multimedia titles
- Includes a FREE Apple watch

SPECIAL VALUE Get a $265 software value for just $99 at retail.

Offer Code 249

Adobe HomePublisher Deluxe 2.0 CD *by Adobe Systems Inc.*

Your complete document publishing solution.

Adobe™ HomePublisher™ Deluxe includes everything you need to create first-class publications—newsletters, flyers, brochures, and more—without any previous desktop publishing experience. Easy-to-use "intelligent" templates guide you through simple design choices, then automatically create a document tailored to your needs. In minutes, you'll have the quality results you once thought only a professional designer could create! With over 1,500 color and black-and-white clip art images, you'll be able to create a sophisticated image for your business stationery, or design effective newsletters with a polished look.

- Includes more than 50 templates
- Free online clip art catalog browser
- Free fonts and specialty papers provided
- Built-in word processor, spell checker, and thesaurus

Editors' Choice Award — *MacUser*
Editors' Pick — *Home Office Computing*, 1995

FREE software!

Receive Adobe TypeTwister ($49.99 value) with your HomePublisher proof of purchase.
Offer requires $7.50 shipping and handling. Make check or money order payable to Adobe Systems Inc.

Offer Code 250

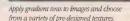# Adobe SuperPaint Deluxe 3.5 CD *by Adobe Systems Inc.*

NEW!

Create sophisticated paintings and drawings.

SuperPaint™ is recognized worldwide as one of the easiest to use, yet most powerful graphics programs around. The user-friendly interface guides you step-by-step throughout the design process, allowing you to create exceptional quality designs in minutes. Use any paint or draw tool with unique fill effects such as textures, patterns, gradients, and colors. And by using the online art catalog browser, your works of art will be completed in no time!

- Unlimited design opportunities
- 16.8 million color varieties
- Over 1,500 color and black-and-white clip art images

Apply gradient tints to images and choose from a variety of pre-designed textures.

FREE software!

Receive Adobe TypeTwister ($49.99 value) with your SuperPaint Deluxe proof of purchase. Offer requires $7.50 shipping and handling. Make check or money order payable to Adobe Systems Inc.

Redemption Coupon

Here's how to redeem your hot deals!

Taking advantage of the hot holiday deals inside is easy. Simply stop by your local authorized Apple retailer to purchase your favorite software titles today.

After purchase, complete this form, making sure to correctly indicate the offer code for each product you purchase (see sample below). Return this form, along with your proof(s) of purchase to: Apple Software Rebate Center, P.O. Box 5872, Denver, CO 80217. You will receive your rebate or premium in eight to ten weeks.

S A M P L E

Find **offer code number** above title

↓

(Offer Code 120)

Where's Waldo?

Offer Code Number _____ _____ _____

Product Name

Offer Code Number _____ _____ _____

Product Name

Offer Code Number _____ _____ _____

Product Name

Offer Code Number _____ _____ _____

Product Name

It's easy!

1 *Go to any retail store location on or before Jan. 31, 1996*

2 *Purchase any of the products in this guide from any software retailer—there's no limit!*

3 *Complete the product name and offer code on this form for **each** product purchased (feel free to make copies of this form as necessary)*

4 *Attach proof(s) of purchase for each product (enclose copy of sales receipt, circle date and product price)*

5 *Important: please refer to offer page(s) for any additional redemption criteria required by the software manufacturer*

6 *Mail to: Apple Software Rebate Center, P.O. Box 5872, Denver, CO 80217. Must be postmarked by Feb. 28, 1996*

Your Mailing Information

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First   Last

Street _____

_____

City _____

State _____ ZIP _____

Home (_____) _____ Work (_____) _____

Area Code   Area Code

_____

Customer Signature

AD

All offers good only in the United States and only for Macintosh versions of software. All offers good for purchases made through Jan. 31, 1996. Offers cannot be combined with any other offer. This form and a copy of the store receipt for the purchase of qualifying software product(s) must accompany all entries. All entries must be postmarked by Feb. 28, 1996. **If you have not received your rebate after ten weeks, call 1 800 681-8843.** Rebate payments made in U.S. Dollars. Apple Computer, Inc., is not responsible for lost or misdirected mail. Void where prohibited. Each software developer is responsible for fulfillment of any and all redemption of offers for its product(s) which result from inclusion in this guide, or participation in this program. All costs associated with redemption of offers (excluding shipping and handling charges, where applicable) are the responsibility of each software developer.

Where to purchase your software.

To take advantage of the special mail-in rebates, premium offers, and special deals inside, purchase your software at *any* software retail store. To help, we've listed a few authorized Apple retailers who carry a wide selection of Macintosh software.

CompUSA
1 800 COMPUSA

Computer City

Best Buy

Micro Center

Future Shop

Computer Town

Fry's Electronics

Rockwell Computer and Software

Elek-Tek

ComputerWare

Sears Brand Central

Egghead
1 800 EGGHEAD

J&R Computer World

Creative Computers

Incredible Universe

Lechmere

Sun Super Saving Centers

HOLIDAY GiFT GUIDE

Take a good look: These 85 names will be turning up on a lot of wish lists this season. By Stephen Brewer

We know it's the thought that counts, but for most of us, if we ever unwrap a ribboned box and sec another tie, sweater, scarf or pair of gloves, it'll be too soon. This year, do your friends and relatives a favor and surprise them with something new: computer-related gifts hand-picked to tickle their fancy. If you don't know where to start, just turn the page: We've got 85 suggestions that are sure to make someone on your list smile. First, there's our collection of 42 new products: Try the Sting and Screeners programs for music lovers, Michelangelo and van Gogh CD-ROMs for art aficionados, travel software for globe-trotters. You'll also see recommendations for Internet fun, hobby and sports software, games for kids of all ages and more. Then, we rounded up the 43 programs that earned perfect scores from our reviewers in 1995—see the list on page 159. And if you're *really* stuck for a gift? Hmmm…we hear magazine subscriptions make nice stocking stuffers…

Battle Beast

Anyone who loves Mortal Kombat or Street Fighter will go wild for the animation and non-stop action in this fearsome fight game. The goal: Destroy the Evil Toadman. The weapons: freeze rays, flamethrowers, pulverizing plasma bursts—and 300 gut-wrenching sound effects. Parental guidance suggested. *$49.95 (Windows CD-ROM) from 7th Level, (800) 884-8863, (214) 498-8100. Circle #421*
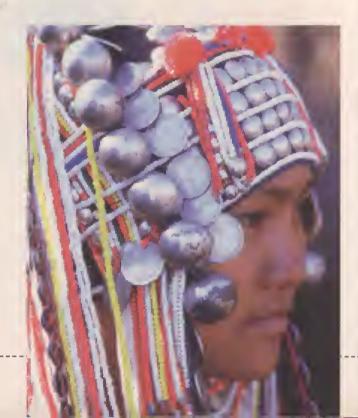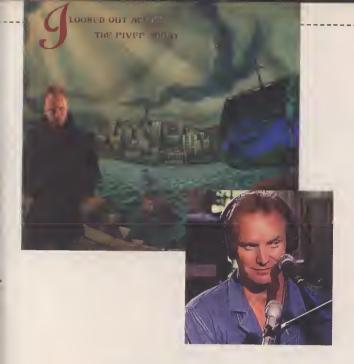
College Sports Series

After the last teams march off the field on Bowl day, your favorite gridiron fan will be happy to dish up these six programs: CD-ROMs spotlighting football at Florida State, Notre Dame, Ohio State, Penn State, the University of Michigan and the University of Southern California. The discs include video, photos, bios, stats, and, to keep up school spirits until the next kickoff, marching bands and cheerleaders. *$59.95 each (Windows CD-ROM, Macintosh CD-ROM) from Stella Interactive, (800) 619-4691, (619) 431-8221. Circle #422*

Beyond the Nine Dragons

Take a captivating digital journey down the Mekong River through China, Burma, Laos, Thailand, Cambodia and Vietnam—a trip that's as enlightening as it is beautiful. Narrated photos and videos combine with local music to provide insights into each nation's people, history and culture. If you want to get a closer look, the Explorer's Guide is filled with tips for vacationers; it's a must for any Asia-bound traveler. *$9.95 (Windows CD-ROM, Macintosh CD-ROM) from The Black Box, by mail-order only: Essex Interactive, 560 Sylvan Ave., Englewood Cliffs, NJ 07632. Circle #423*
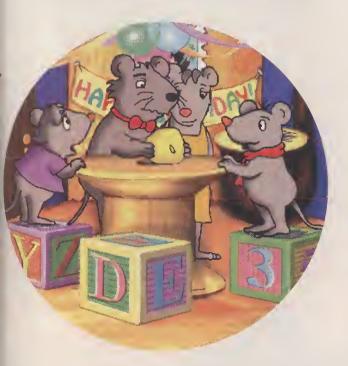
All This Time

Fans of Sting's music would have welcomed the singer's multimedia debut just for its new songs and re-interpretations of old favorites. But add the insights into his art Sting provides in conversations about his life, his spiritual and political views, his film career and, of course, his music, and it's an obvious gift choice for admirers. The video, animation and photorealistic images on the two-disc set are as compelling as the songs, which are keyed to beautiful landscapes that reflect the music's themes. *$49.95 (Windows 95 CD-ROM) from Starwave, (206) 957-2000. Circle #424*

Sportster 28,800 Data/Fax Modem

Any Net surfer on your list will covet a high-speed 28.8-Kbps modem such as this one, which rockets its user through cyberspace twice as fast as a 14.4-Kbps model. Cybernauts will zip from Web site to Web site, where they'll be able to upload graphics or download files and games in a flash. *$279 from U.S. Robotics, (800) 342-5877, (708) 676-7010. Circle #425*

Marty and the Trouble With Cheese

Kids have always jabbered away at cartoons on the screen—and finally, we've found a character who talks back. In the first voice-activated software game for children, kids call through a microphone to Marty Mouse, who pops out from a piece of Swiss cheese to interact with players in a variety of engaging ways— he'll ask them, for instance, to help him sail across a lake by blowing as hard as they can. If only all computer mice were this friendly... *Ages 2 to 5. $34.95 (Windows CD-ROM, Macintosh CD-ROM) from Maxis, (800) 336-2947, (510) 254-9700. Circle #426*

Sony Music Screeners

Know anyone who loves watching MTV as much as using the PC? Screeners split the difference: Each screen saver includes a video by a popular singer or band, such as Alice in Chains, Michael Jackson, Mariah Carey, Michael Bolton and James Taylor, as well as two games, on a floppy disk—that's right, full-motion video, no CD-ROM required. *$12.98 each (Windows) from Sony Music, (212) 833-8000. Circle #428*

Cities Under the Sea

Scuba divers, snorkelers and anyone else fascinated with the singular ecology of a coral reef will dive eagerly into this dazzling CD-ROM. Jean-Michel Cousteau and his team of scientists and photographers have packed seven undersea labs' worth of information into this multimedia project. Narrated video and stunning photos provide an unforgettable portrait of animals and plants living and working together in harmony. *$49.95 (Windows CD-ROM) from Enteractive, (800) 591-6100, (212) 221-6559. Circle #427*

3D Movie Maker

Steven Spielberg, look out! This program puts youngsters in the director's chair to audition stars, pick costumes and props, choose sets, maneuver camera angles, select scores and sound effects—even record their own dialogue and original music. From the beginning of production to the final cut, youngsters call the shots to create a 3-D animated movie. *Ages 8 and up. $49.95 (Windows 95 CD-ROM) from Microsoft, (800) 426-9400, (206) 882-8080. Circle #429*
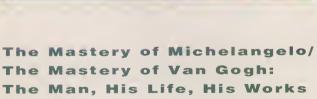
Netwe@r

Bring an off-line :) to your favorite e-mail writers' faces with these charming T-shirts, caps and sweatshirts emblazoned with emoticons—cute symbols used by on-line correspondents to express emotions. You'll turn any :(around with these clever garments. *T-shirts (white), $16; caps (khaki/black, black, royal blue, forest green), $17; sweatshirts (black), $31. From netwe@r, (800) 906-9327, (908) 351-5571. Circle #430*

The Magic School Bus Explores the Oceans

Fans of Ms. Frizzle and her inquisitive class—stars of the popular book and PBS TV series—will plunge into this undersea adventure, which proves fun and learning can go hand in hand. As kids hunt for sunken treasure, they learn all about tidal zones, coral reefs and other aspects of ocean life. *Ages 6 to 10. $49.95 (Windows CD-ROM) from Microsoft, (800) 426-9400, (206) 882-8080. Circle #431*

The Mastery of Michelangelo/ The Mastery of Van Gogh: The Man, His Life, His Works

Never-before-reproduced works by Michelangelo from the Vatican collection and a walk through the French village where van Gogh spent his last days are among the treasures on these two beautifully produced CD-ROMs. Each disc uses stunning images and insightful commentary to shape portraits any art lover will savor. *$59.95 each (Windows CD-ROM) from E.M.M.E. Interactive, (203) 406-4040. Circle #432*

AS FAST AS YOU CAN DO THIS

YOU CAN DO this

WITH THIS.

NEW DATAPEN COPIES TEXT INTO YOUR COMPUTER AS FAST AS YOU CAN DRAG IT ACROSS THE PAGE.

Start

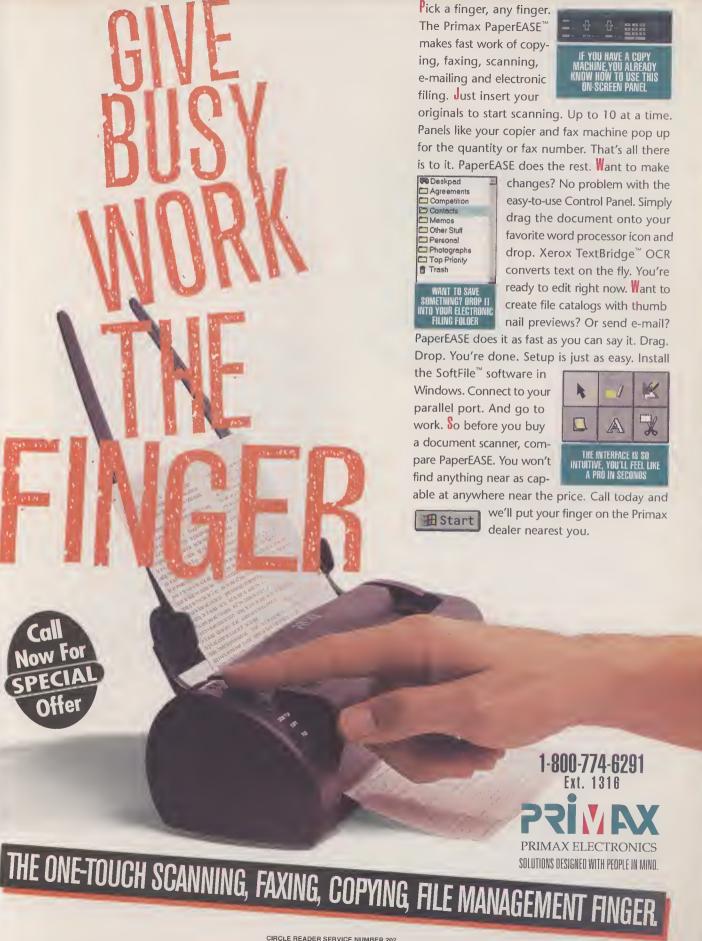Life is good again. Inputting printed data was always the most nagging job with computers. Ask anyone who does research for school or business or keeps records at home or office. There weren't any shortcuts. You had to sit down and type and type and type. Meet DataPen™ and say good-bye to the most time-consuming job you do. Just drag DataPen across the text and bingo, it's in your Windows® or Windows 95 application. Up to 20 times faster than you could type it. Not just simple text, either. DataPen reads eleven

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languages, accents and all. And any font from 8 to 22 points. DataPen can even be trained to recognize and place spreadsheet data in the correct cells. Setup couldn't be easier. DataPen plugs right into your parallel printer port; every PC has one. So you have a choice. Type your brains out. Or use your brains. Get the simplest text entry system ever. DataPen from Primax. Call today for the dealer nearest you.

PRIMAX
PRIMAX ELECTRONICS

SOLUTIONS DESIGNED WITH PEOPLE IN MIND.

Anne's 1995 Advent Calendar

Top Gun: Fire At Will

If they can't get enough of the movie, they're bound to go over the top with this realistic dogfight game that puts players in the cockpit of an F-14 fighter jet. The authentic-looking flying scenes use live-action video cuts from Tom Cruise's '80s hit. Novices will find it easy to jump right into the thick of battle, yet the fast action will also satisfy experienced flight-sim fans. *$48.99 (DOS CD-ROM) from Spectrum HoloByte, (800) 695-4263, (510) 522-3584. Circle #434*

Family Christmas

Let your PC help spread some yuletide cheer; this holiday organizer will keep track of your card and gift lists, store festive holiday recipes and record special memories in a diary. To brighten your own holiday around the house, there are seasonal screen savers and wallpaper, an Advent calendar and a game for kids called Santa's Sleigh Ride. *$19.95 (Windows, Windows CD-ROM) from FamilyWare, (800) 313-7333, (604) 983-8469. Circle #433*

Eastwood

Go ahead, make someone's day! Film clips, posters, original movie reviews, home movies and loads of other Clint memorabilia trace the actor's 40-year, 53-movie career, from *Revenge of the Creature* (1955) to *The Bridges of Madison County* (1995). Plus, in an exclusive interview, the actor-director-producer shares inside stories about his life and career. *$49.95 (Windows 95 CD-ROM) from Starwave, (800) 457-8646, (206) 957-2000. Circle #435*

Who says computer products don't have a human side?

LOGITECH

Scenes Personal Screen Saver

Why let your favorite pictures gather dust in a drawer when you can turn them into PC screen savers or wallpaper and enjoy them every day? It's also a snap to add titles and captions to create a digital photo album. To get you rolling, the package includes a coupon for 10 free photo or slide scans. *$29.95 (Windows) from Microsoft, (800) 426-9400, (206) 882-8080. Circle #436*
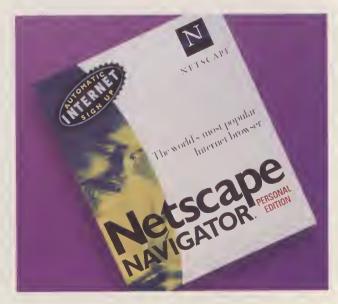
Pooh hurried to his friend Christopher Robin to borrow a balloon so he could get some honey.

Animated StoryBook: Winnie the Pooh and the Honey Tree

A.A. Milne's lovable characters come alive in this CD-ROM, which features animation from the original Walt Disney cartoon. Pooh and his delightful pals take your kids along on interactive adventures in the Hundred-Acre Wood. With charming narration in both English and Spanish, sing-along screens and fun skill-building games, it's a honey of a deal. *Ages 3 to 8. $29.95 (Windows CD-ROM) from Disney Interactive, (800) 688-1520, (818) 543-4300. Circle #437*

Netscape Navigator Personal Edition

Launch someone you love into cyberspace with the best software we've seen for surfing the Web. Netscape's highly acclaimed Web browser takes just minutes to install, and with the click of a button you can choose your own service provider. The program, which includes e-mail connections and technical support, makes cruisin' the information highway a breeze. *$39.95 (Windows) from Netscape Communications, (800) 638-7483, (415) 528-2555. Circle #438*

The Masters

Send the golfer in your life on a tour of the remark-able Augusta National Golf Course, which hosts the sport's most prestigious tournament, The Masters. It's a whole archive in one: 60 years of legendary moments recalled in video clips. photos, player profiles, analyses of each event and other memorabilia. *$39.99 (Windows CD-ROM) from Creatire Multimedia, (800) 262-7668, (503) 241-4351. Circle #440*

Cadillacs and Dinosaurs, The Final Cataclysm

Sharp comic-book-style graphics, cool 3-D animation and chilling action will hook avid gamers. The scene's Jurassic, but don't leave the bright-red '53 Caddy in park too long; players must steer feverishly between the legs of dinosaurs and around other obstacles. The mission: Search the jungle for a nuclear reactor and disarm it before it destroys the earth. *$29.99 (DOS CD-ROM) from Rocket Science Games, (800) 987-6253, (415) 442-5000. Circle #439*

The Whole Internet Calendar

This 1996 desk calendar gives any cyberspace explorer an itinerary for the new year, with descriptions and addresses for a different Internet or Web site every day. If a Web address changes after publication, as occurs frequently, you can e-mail the publisher for the latest update. One caveat: Try to resist the urge to skip ahead; it's all too easy to lose track of time on the Web—and doesn't that defeat the purpose of having a calendar in the first place? *$8.95 from Workman Publishing, (212) 254-5900. Circle #441*

Dr. Seuss's ABC

Wacky characters and super sound effects, from Aunt Annie's Alligator to the Zizzer-Zazzer-Zuzz, make learning the alphabet fun—but it's so charming, adults may want to sit in for a spell, too. Click on a camel on the ceiling and he'll do a conga, while a barber does the boogie-woogie. Odds are, kids will do cartwheels throughout. *Ages 3 to 7. $40 (Windows CD-ROM, Macintosh CD-ROM) from Broderbund/Living Books, (800) 397-4240, (415) 352-5200. Circle #442*

Looney Tunes Animated Screen Saver

Relive the golden age of Warner Bros. cartoons on your PC with all the classic characters: Bugs Bunny and Elmer Fudd, Daffy Duck, Sylvester and Tweety, the Tasmanian Devil, Wile E. Coyote and the Road Runner, and the rest of the Looney Tunes gang pop up in 12 gut-busting cartoons anytime you need a break. *$29 (Windows, Macintosh, Windows CD-ROM, Macintosh CD-ROM) from Berkeley Systems, (800) 877-5535, (510) 540-5535. Circle #443*

Fly Fishing: Great Rivers of the West

Here's a catch for your favorite angler: Gorgeous images and the enchanting sounds of rushing waters bring six of the West's most spectacular rivers to life. It's hard not to get hooked on the techniques of fly tying and casting after watching these expert demonstrations in such majestic surroundings. *$34.95 (Windows CD-ROM, Macintosh CD-ROM) from W1 Publishing, (800) 432-1332, (612) 996-6000. Circle #444*

Fishing the San Juan

Fed by a constant stream of tiny insects, trout on the San Juan can grow 15 inches in a year.

Most are rainbows, although a few cutthroat and browns can be caught in the quality waters.

Unlike most other western rivers, the San Juan holds no whitefish or suckers.

Pitfall: The Mayan Adventure

Any Nintendo junkie will have a field day dodging ferocious crocodiles, side-stepping sinkholes, avoiding killer skeletons and swinging through the perilous jungle in this new adventure written for Windows 95. All 13 levels of play are souped up with awesome visual and audio effects. *$39.95 (Windows 95 CD-ROM) from Activision, (800) 477-3650, (310) 473-9200. Circle #446*

PerfectWorks for Kids

It's never too early to teach kids basic computer skills, and here's a great way to start. In one of the first Windows 95 products for children, kids can write (spell-checker included), draw and paint, access America Online, and fax or e-mail their creations to friends, or to mom and dad at the office. The program promises to appeal to boys and girls of different backgrounds and nationalities. *Ages 4 to 10. $49.95 (Windows 95 CD-ROM) from Novell, (800) 451-5151, (801) 225-5000. Circle #445*

Pathways Through Jerusalem

Dramatic re-enactments of great moments in the holy city's history, an interactive timeline, video tours and waves of fascinating facts capture this 3,000-year-old melting pot of religions and cultures in all its richness. Choose a Christian, Jewish, Muslim or nondenominational on-screen guide to help you explore the two-disc set. *$69.95 (Windows CD-ROM, Macintosh CD-ROM) from Future Vision Multimedia, (800) 472-8777, (914) 426-0400. Circle #447*

Endorfun

Send someone's senses spinning with these wildly addictive arcade-style puzzles set against various psychedelic backgrounds. All the mesmerizing, heart-racing action is balanced with an original New Age soundtrack—and each time you complete a game, you're rewarded with a supportive message of peace, love or understanding. "Expect the best." $29.95 *(Windows CD-ROM) from Time Warner Interactive, (800) 693-3253, (818) 841-0737. Circle #448*

Garden Encyclopedia

Backyard gardeners will have an easier row to hoe thanks to the powerful search tools on this handy CD-ROM guide. Search the more-than-1,000 plants in the reference—all lusciously illustrated with color photographs—by color, bloom season, sun and soil conditions, or hardiness zones to find the right match for any garden. The How-to Guide includes narrated videos on selecting and caring for plants. $49.95 *(Windows CD-ROM) from Books That Work, (800) 242-4546, (415) 326-4280. Circle #449*

Proverbs: The Biblical Screen Saver

Take a break to reflect on the meaning of the holidays with more than 100 evocative quotes from Proverbs, Ecclesiastes, Matthew and Corinthians—including the words of Jesus Christ, Paul the Apostle and King Solomon. The selections pop up in front of gorgeous nature photos, accompanied by stirring music. There's even room to add your own favorite passages from the Bible. $30 *(Windows),* $40 *(Windows CD-ROM) from Creativeminds, (800) 701-0889, (310) 473-1343. Circle #450*

The human element is an essential part of Logitech products. Our latest technologies and products continue a 15-year tradition of bringing people and their computers together.

This fall, we launched **TrackMan® Marble™**, which incorporates our revolutionary **"Marble"** sensing technology. With its optical tracking system, it resists dust and dirt and doesn't require regular cleaning. It has already become a **"must have"** for trackball users seeking a high level of reliability and accuracy.
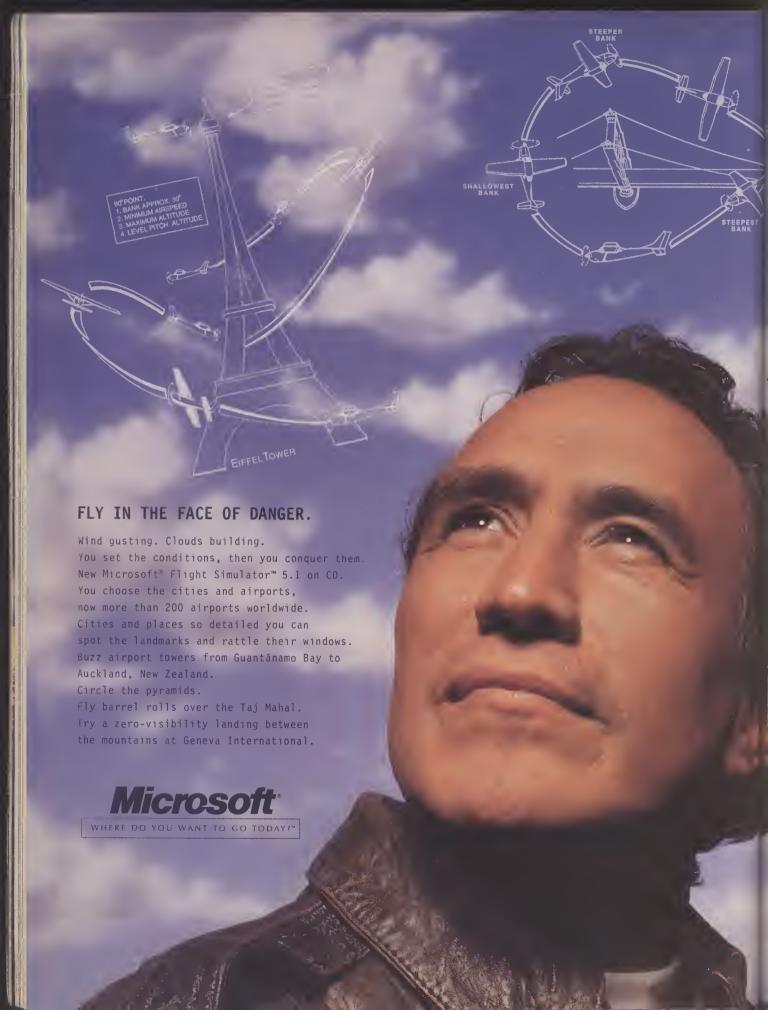
PageScan™ Color, our 24-bit color, boardless, sheetfed scanner, took the market by storm in September. With industry-leading integrated software for scanning images and text, filing, faxing, and copying, and its low street price, PageScan Color **set a new standard** in affordable, multi-function imaging devices.

By integrating hardware with powerful software, Logitech products are designed to add value by enhancing the computing experience for individual users. They're both approachable and a pleasure to use. The **"magic"** of our products comes from the marriage of innovation, attractive design, and leading-edge technology— a unique combination responsible for our leadership position in the control device and imaging markets, and an impressive array of industry awards over the years. In fact, people often use the word **"cool"** to describe the contemporary look, feel, styling and variety of choices which our products provide.

"I love your products!" is also a phrase we frequently hear. As a result, we've taken a new direction with our advertising, emphasizing this characteristic of our products and showing the different ways that individual users love specific Logitech products. We make *Products People Love™*.

Look for our innovative products and our new tagline— and join our satisfied customers in discovering products that you, too, will love!

Sincerely,

Pierluigi Zappacosta,
President, Logitech

Logitech Inc.
6505 Kaiser Drive
Fremont, CA 94555
Phone 510-795-8500
Telex 757411
Fax 510-792-8901

LOGITECH

Products people love™

Microsoft **Flight Simulator**

FLY IN THE FACE OF DEATH.

Try stunts you wouldn't dare in real life.
Set the weather so you can fly Cuban 8s
around a fog-shrouded Golden Gate Bridge,
and then land in 40 mph gusts at SFO.
Fly Lindbergh's path from New York to Paris, using only
your instruments to plot your way, using nerves of steel
to handle the bone-jarring turbulence.
With Microsoft Flight Simulator 5.1, real-life
flight equations and models let you find
out what it's like to actually fly,
to fly in the most frightening real-life conditions.

FLY IN THE FACE OF THE FAA.

Fly patterns that would get you arrested.
Test your flight skills with 20 new gameplay scenarios. Land on the USS Nimitz.
Slalom between buildings on Park Avenue, the Champs Élysées, North Michigan Avenue.
Land a plane in the Los Angeles Coliseum. Touch down at some of the world's
most difficult airports on days you would never get clearance to land.
Your ability to customize weather patterns, choose airports, and fly above 3D clouds and scenery
that changes with the time of day and time of year makes flying as realistic as possible.
Get new Microsoft Flight Simulator 5.1. It's as close to reality as you want to get.

Kirk, Aurelan
Kirk, George Samuel
Kirk, James T.
Kirk, James T. (mirror)
Kirk, Peter
Kirok
Kiron, Knife of

ENCYCLOPEDIA MODE

ENCYCLOPEDIA   RESOURCES
EPISODE   TOPICS
CHRONOLOGY   FOUND ENTRIES

Kirk, James T.
(William Shatner). James Tiberius Kirk was ... *Starship Enterprise* during its historic five-year mission ... Starfleet serial number SC 937-0176 CEC. ("Court Ma...

Childhood and family: Kirk was born in 2... in Iowa on planet Earth *(Star Trek IV: The Voyage Home)* ... was one of nine surviving eyewitnesses to the massacre ... planet Tarsus IV by Kodos the Executioner. ("The Consc... ...es Kirk lost his older brother, George Samuel Kirk (whom ... sister-in-law, Aurelan Kirk, on planet Deneva due to the ... ural parasites in 2267. Kirk's nephew, Peter Kirk survive... TOS). Sam Kirk had two other sons who were not on De... ("What Are Little Girls Made Of?" [TOS]).

LCARS READY

Star Trek Omnipedia

Beam your favorite Trekker into seventh heaven with the last word in *Star Trek* minutiae. The program (voice-activated, for a totally futuristic experience) covers every episode, every human and alien, and every topic ever discussed on the *Enterprise* in the original series, *The Next Generation* and the first season of *Deep Space Nine*. $79.95 *(Windows CD-ROM)* from Simon and Schuster Interactive, (800) 223-2336, (212) 698-7456. *Circle #451*

ClickArt: Bundle Up for the Holidays

Desktop publishers will find it easier than ever to create festive greeting cards, party invitations, newsletters and fliers with this package of more than 400 seasonal images and 20 TrueType fonts. There are graphics galore to help you celebrate Halloween, Thanksgiving, Christmas, Hanukkah, New Year's, and even that noted January holiday, the Super Bowl. *$19.95 (Windows CD-ROM, Macintosh CD-ROM) from T/Maker, (800) 692-0195, (415) 691-7762. Circle #452*

Air & Space Smithsonian: Dreams of Flight

Would-be pilots will flip—literally—for this program's Acrobatic Flight Simulator, which lets you experience the death-defying stunts of the old barnstorming days. Too young to remember them? Check out the 50 minutes of film, audio recordings of witnesses to great moments in aviation history, 2-D explorations of 65 historic aircraft, and a section on how flight touched the lives of ordinary people long before the invention of multimedia simulation. *$29.99 (Windows CD-ROM) from Creative Multimedia, (800) 262-7668, (503) 241-4351. Circle #453*

PIONEERS

Amelia Earhart 1897-1937

Aircraft Lockheed Vega; Lockheed L-10 Electra.
Best Known For: Disappearing on round-the-world flight.
Accomplishments: Amelia Earhart was a tireless advocate and promoter of aviation, and women in aviation. Moreover, she was a formidable aviator: the first woman to solo the Atlantic (on May 20-21, 1935); the first person to solo from

Amelia Earhart

LEARN ABOUT THE WORLD OF POCAHONTAS FROM SOMEONE WHO ACTUALLY LIVES THERE.

INTRODUCING POCAHONTAS ON CD-ROM

Explore a Native American village. Help the settlers discover a new world. Build a wigwam. Search for wild animals. Have fun learning Algonquian words. These are but a few of the things a child can read and discover in Disney's new Animated StoryBook Pocahontas, a CD-ROM experience through the landscape and characters of Pocahontas. At the click of a mouse, you bring to life hundreds of Disney animations on sixteen interactive screens. Two unique panoramas let you experience settler and Native American communities in amazing detail. Stimulate your mind and tickle your funny bone with four multi-level games. Relive your favorite scenes, discovering new things every time you play. It's the magic of Disney, and it's right at your fingertips.
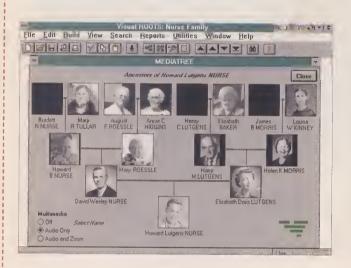
ONCE AGAIN, THE MAGIC OF DISNEY BEGINS WITH A MOUSE.

DISNEY INTERACTIVE

Doonesbury Screen Saver

You might feel a tad guilty giving someone these 10 brilliant, totally intense examples of cutting-edge satire. After all, who's going to be able to get down to serious business on the computer with so much distracting fun on the screen? Perhaps it'll ease your mind to know that all proceeds will be donated to environmental and human-rights causes. *$34.99 (Windows, Windows CD-ROM) from Mindscape, (800) 234-3088, (415) 897-9900. Circle #454*
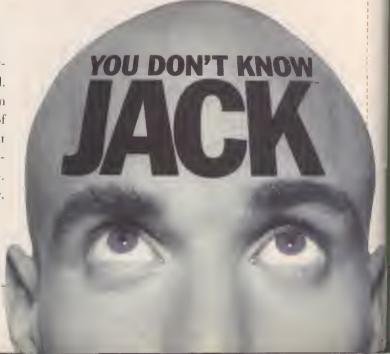
Visual Roots

Here's a gift for the whole family—including the generations to come. This genealogy program offers a safe place to store family and medical histories, photos, video clips, audio recordings, personal reminiscences, birth and marriage certificates, and other important documents. It's not just a family tree—it's more like a multimedia forest of genealogical information. *$49.95 (Windows) from CommSoft, (800) 327-6687, (707) 838-4300. Circle #455*

You Don't Know Jack

This irreverent trivia game will liven up any gathering, making it a great gift for laughs all year round. Up to four players can compete to answer more than 800 hilarious questions that test their knowledge of pop culture. Contestants experience all the excitement of being on a TV quiz show, right down to the wisecracks they must endure from a smart-aleck emcee. *$29.99 (Windows CD-ROM) from Berkeley Systems, (800) 344-5541, (510) 549-2300. Circle #456*

INTRODUCING A JUNGLE GYM FOR THE MIND.

Thanks to Disney's new interactive CD-ROM, "The Lion King Activity Center", your kids can play for hours on end with Simba and his friends. There are nine exciting and challenging activities, which inspire children to learn and use their creativity. As they master each one, they can increase the difficulty so they'll never run out of fun things to do. It's bound to be the best workout your kids will ever have.

Matching

Art Studio

Hidden Animals

Music games

Puzzles

Memory

Mazes

Achi

CD-ROM for
Windows,
Windows 95, and
Macintosh

DISNEP
INTER
ACTIVE

Spelling

© Disney

Dogz, Your Computer Pet

How cute is that doggy in the window? (Your PC window, that is.) These computerized canines nap quietly in the corner of your screen and will perform dozens of tricks on command. Magically, the pups grow up before your eyes, reaching maturity 30 days after installation—no housebreaking required! There's a variety of different breeds, and you can check out the pups on the Internet at *www.pfmagic.com/dogz/adopt* before you "adopt." *$19.95 each (Windows) from PF. Magic, (800) 482-3678, (415) 495-0400. Circle #457*

The Day After Trinity

It's not the cheeriest subject for holiday time, but serious history buffs will be fascinated by the full-screen version of this Oscar-nominated 1980 film about J. Robert Oppenheimer and the development of the atomic bomb, with running commentary by the film's director. Thanks to the multimedia treatment, viewers can call up FBI files, documents from the Manhattan Project, and 100 haunting black-and-white photos. *$29.95 (Windows CD-ROM, Macintosh CD-ROM) from Voyager, (800) 446-2001, (914) 591-5500. Circle #458*

Voyage Through the Wonders of Italy

Armchair travelers will relish every step as they wander the bridges and canals of Venice, and the streets of Florence, Rome and Sienna—without budging from their computers. Beautiful photographs, videos, interactive maps and drawings explore the country's art, architecture, landscapes and history, to the accompaniment of the music of Vivaldi, Rossini, Verdi and other Italian master composers. *$59.95 (Windows CD-ROM) from E.M.M.E. Interactive, (203) 406-4040. Circle #459*

What's the best way to share a childhood memory with your child?
Think. Think. Think.

With "Disney's Animoted StaryBook Winnie the Pooh ond the Haney Tree" an CD-ROM, Paah comes to life in a whole new woy. Naw your child con read ond learn with Pooh ond his friends. They'll enjoy five sing-olongs, four skill-building games and hundreds af things to discaver throughout this timeless tole. It's on experience thot will bring bock memaries ond create new ones. And with Pooh, leorning will be fun and exciting. After oll, o beor af very little brain con be very, very smort.

Watch
The New Adventures of
Winnie the Pooh weekdays
on The Disney Channel.

Disney
INTER
ACTIVE

© Disney

CD-ROM for Windaws,
Windows 95, ond Macintosh
CIRCLE READER SERVICE NUMBER 23
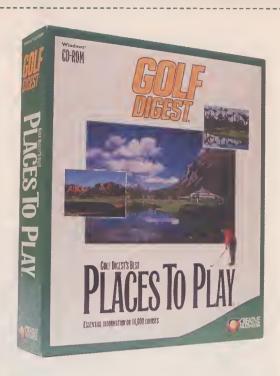
Golf Digest's Best Places to Play

As any golfer will tell you, some courses are to die for. To find such links to heaven, this multimedia program features videos, photos and all the facts on 14,000 fairways and greens in the United States, Canada and the Caribbean. It also gives forethought to the 1,700 Best Places to Play and the Best 18 Holes You Can Play. *$29.99 (Windows CD-ROM) from Creative Multimedia, (800) 262-7668, (503) 241-4351. Circle #460*

Explore the Grand Canyon

This interactive magic-carpet ride is the next best thing to visiting the national wonder: Soar over towering buttes, zoom in for a close look at the Inner Gorge and float down the mighty Colorado River. All told, the spectacular photographs, videos, 3-D models, voice-overs and original music make this virtual tour a real trip. *$49.99 (Windows CD-ROM) from the Coriolis Group, (800) 410-0192, (602) 483-0192. Circle #461*

Le Louvre—the Palace and Its Paintings

Even if a trip to Paris isn't in your plans, you can enjoy the wonders of the Louvre by examining 100 treasured paintings on your computer; highlight the details or see the works in the full screen. The magnificent architectural details of the palace itself also appear in multimedia splendor. *$49.95 (Windows CD-ROM, Macintosh CD-ROM) from BMG Interactive and Montparnesse Multimedia, (212) 930-6768. Circle #462 ●*

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Now more than ever, you need a Microtek scanner! It's the easiest way to get photos, drawings or pages of text into your computer.

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Scan and save rare family photos with any of Microtek's low-priced flatbed scanners.

Help Your Kids Make The Grade. Your kids can use a Microtek color flatbed scanner to add photos or illustrations to their school assignments. Or to make fliers with scanned photos, drawings or maps to announce softball, soccer, scouting, or high school fund-raising events.

Your kids may actually start to enjoy their homework assignments when they find out how easy it is to add drawings or photos to their term papers or other school reports.

Complete Your Home Office. And of course, a Microtek scanner is the necessary tool for any home office use. With it you can eliminate hours of retyping when you scan financial papers, memos, business letters, contracts or other important documents into your computer.

Or include eye-catching photos or illustrations to your newsletters, brochures or proposals.

More Family Savings. And we know your family values great deals. That's why our family of scanners is so affordable. For about the cost of your weekly grocery bill, get one of the hottest selling little scanners for home or office. **Microtek PageWiz™** is a personal page scanner that plugs into PCs or Windows-based notebook computers and instantly scans letters, forms and business cards. With *Caere's OmniPage Limited Edition* OCR software (bundled with PageWiz) you can quickly convert printed documents into editable text for faxing, e-mailing, storing or printing.

ONLY $199![1]

Microtek PageWiz is a personal page scanner for PCs or Windows-based notebooks

Color Scanners Anyone Can Afford. For only $399, you can purchase the high quality and ever popular **ScanMaker® II**. Or for award-winning color scanning at a fast single-pass speed, get the **ScanMaker IISP** for just $499. And for high-resolution color scanning pick up the **ScanMaker IIHR** starting at just $599.

These amazing color flatbed scanners include *ScanWizard*, Microtek's easy-to-use scanner controller software (which even a first-time user will find simple) and *OCR software* for scanning pages of text. Windows users also receive *Microtek's ImageStar II* image-editing software and Macintosh users receive *MicroFrontier's Color It!* paint and image-editing software.

For the location of your nearest authorized Microtek reseller or for more information, call **1-800-654-4160** or with your touch-tone phone use our convenient AutoTech Fax-Back line at **(310) 297-5101**.

Microtek quality desktop scanners for home or office. Don't settle for anything less.

MICROTEK
Better Images Through Innovation.

ONLY $399![1]

ONLY $499![1]

ONLY $599![2]

THE BEST OF 1995

The items on the previous pages highlight the best of what's new in stores this season. But as you shop, don't overlook standout programs reviewed earlier this year. To refresh your memory, here's a list of all 43 software releases that won perfect four-star ratings in *HomePC* in 1995. This roundup of the most creative and well-designed games, education programs, and reference and hobby software includes updated prices, ordering information, suggested ages for the kids' programs and the month of each review—so you can see for yourself why we think these will make great gifts.

FUN AND GAMES

Discworld
Psygnosis, (800) 438-7794, (617) 497-5457
$59.99 (DOS CD-ROM, Macintosh CD-ROM)
July (Circle #479)

Flight Unlimited
Looking Glass Technologies, (617) 441-6333
$59.95 (DOS CD-ROM)
September (Circle #480)

Lode Runner
*Sierra On-Line, (800) 757-7707,
(206) 649-9800*
$44.95 (DOS, Windows, Macintosh)
$49.95 (DOS CD-ROM, Windows CD-ROM)
January (Circle #481)

Monty Python's Complete Waste of Time
*7th Level, (800) 884-8863,
(214) 437-4858*
$59.95 (Windows CD-ROM)
February (Circle #482)

Triazzle
*Berkeley Systems, (800)
308-6278, (510) 540-5535*
$39.95 (Windows, Macintosh)
August (Circle #483)

Under a Killing Moon
*Access Software, (800) 800-4880,
(801) 359-2900*
$99.95 (DOS CD-ROM)
February (Circle #484)

KID RAVES

Alien Tales
*Broderbund Software, (800) 521-6263,
(415) 382-4600*
$39.95 (Windows CD-ROM,
Macintosh CD-ROM)
Ages 9 to 13
July (Circle #485)

Allie's Activity Kit
*Opcode Interactive, (800) 557-2633,
(415) 494-1112*
$59.95 (Windows CD-ROM)
Ages 3 to 6
February (Circle #486)

Art Explorer Deluxe
Adobe Systems, (800) 833-6687, (415) 961-4400
$49.95 (Macintosh CD-ROM)
Ages 8 and up
November (Circle #487)

**Brimax Learning Together:
The Rabbits at Home**
*Reed Interactive, (800) 308-6353,
(301) 601-2159*
$59.95 (Windows CD-ROM, Macintosh CD-ROM)
Ages 3 and up
March (Circle #488)

ECO East Africa
*IVI Publishing, (800) 432-1332,
(612) 996-6000*
$47.95 (Windows CD-ROM)
Ages 14 and up
August (Circle #489)

Note: All reader-service numbers refer to the current issue.

December 1995 HOMEPC 159

$44.95, The Yukon Trail (Windows, Macintosh)
$49.95, The Yukon Trail (Windows CD-ROM, Macintosh CD-ROM)
$58, Oregon Trail II (Windows CD-ROM, Macintosh CD-ROM)
Ages 10 to 16
July (Circle #505)

The Pagemaster
Turner Interactive, (800) 278-4355, (404) 885-7976
$49.98 (Windows CD-ROM, Macintosh CD-ROM)
Ages 6 to 12
April (Circle #506)

Pantsylvania
Headbone Interactive, (800) 267-4709, (206) 323-0073
$49.95 (Windows CD-ROM, Macintosh CD-ROM)
Ages 4 and up
November (Circle #507)

Recess in Greece
Morgan Interactive, (415) 693-9596
$34.95 (Windows CD-ROM, Macintosh CD-ROM)

Ages 7 to 12
March (Circle #508)

Sesame Street Letters/ Sesame Street Let's Make a Word/ Sesame Street Numbers
Creative Wonders, (800) 245-4525, (415) 572-2787
$39.95 (various CD-ROM formats)
Ages 3 to 6
December (Circle #509)

SimTown
Maxis, (800) 236-2947, (510) 254-9700
$44.95 (Windows CD-ROM, Macintosh CD-ROM)
Ages 8 to 12
June (Circle #510)
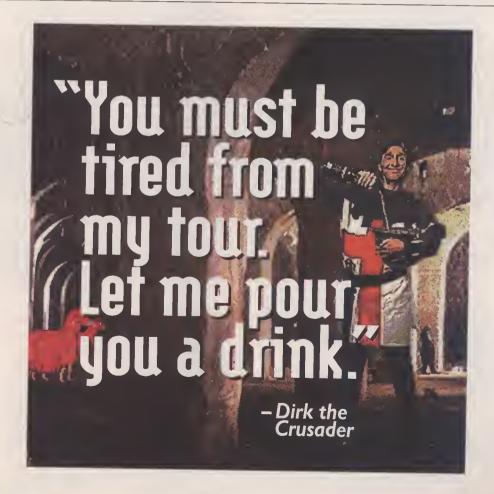
Travelrama USA
Sanctuary Woods, (800) 665-2544, (415) 286-6100

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SOFTWARE SUPPORT

BY JOHN ECKHOUSE

Lois Boullion divides her family's software library into two piles: "I have a box of programs that work and another filled with those that don't. I don't know why I'm pay-ing for programs my kids can't use." Yet Lois no longer bothers to ask software companies to sup-port the programs they sell—she says she's spent too many days

listening to a busy signal, or waiting on hold for 30 minutes only to have a support technician suggest fixes she's already tried. "I just can't stand dealing with them anymore," says the Tripoli, Iowa, factory supervisor bluntly.

Jim Hunt has had better luck. He's owned a computer for eight years, and the Jackson, Mich., car salesman is grateful that "in all that time, with all my software, I've only had to call a company for help one time." But that experience is not one he'd care to repeat. When Jim called Intuit for help with his Quicken program, the company immediately replaced one of his software disks, saying it was probably defective. When the new disk didn't solve his problem, he called Intuit several times and got no response. So what did he do? "I threw the software away and bought a competitor's program."

Odds are many of you can relate to what Lois and Jim have felt. When *HomePC* asked readers to share their software-support experiences with us in a recent survey, we received 4,000 responses (see methodology sidebar on page 174) that held numerous tales of software woe. Respondents complained of waiting far too long to get

When Intuit ignored Jim Hunt's repeated calls, he finally dumped Quicken and bought a rival program.

problems solved and lamented the quality of the support they ultimately received from software manufacturers. Two of every five readers (41 percent) reported problems with software in the past year that led them to seek assistance. Of that group, on average, readers reported problems with two programs.

Our readers encountered technical problems with so many titles from so many different manufacturers that it was impossible to determine with statistical accuracy which software companies have provided the best support for their products, as we did when we ranked companies for hardware reliability and support (see "The Best PC Support," November 1995). But we can draw a number of telling conclusions about overall trends and how some of the largest software companies have performed: It's clear the industry could do better.
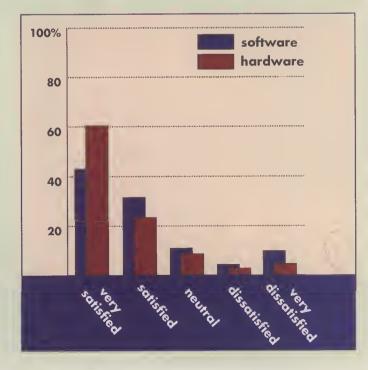
Problems come fast, help is slow

More than 80 percent of people who reported software problems faced them during the eagerly anticipated moments when they first tried to use a new program. This was particularly vexing to parents who watched their children's faces sink from delighted anticipation to disappointment. On average, owners of programs from Disney Interactive, Sierra On-Line and IBM reported more problems in the early going than Microsoft and Intuit customers.

Nearly all software programs come with manuals, but readers seem to believe they're

readers hold software to a higher reliability standard than PCs

HomePC readers were mostly pleased with their software's reliability. Overall, 74 percent of those polled told us they were satisfied or very satisfied with the reliability of programs they purchased in the past year, compared with 84 percent who said they were satisfied with the reliability of their hardware. That's surprising, because our polls showed that readers ran into far more problems with their PCs than with their software.

written on Mars: Only 6 percent of respondents found the manual of any use in solving technical snafus. And only 50 percent described the software manual as helpful in directing them to better sources of information, such as phone or on-line support.

Since they couldn't count on the manual, most people—65 percent—next turned to software manufacturers for help; 12 percent went back to the retailer, 12 percent asked friends or relatives for assistance, and 8 percent went to their PC manufacturer.

Phone support caused readers the most grief. When people dial up a company, they expect a person to answer. Failing that, they want to be able to leave a message. Apparently this is news to software companies. Only 14 percent of readers who called a support line say they got through right away. On average, they waited on hold for nine minutes, with one in five waiting 16 minutes or more. IBM and Disney Interactive customers reported much longer-than-average waits for their calls to be answered.

1 in10 has waited a week for software service.

"The first time I called IBM I was on hold for over an hour, which I found rather extreme," says Janrae Frank, a San Jacinto, Calif., writer.

"Somebody would come on the line every once in a while, listen to what I had to say, then pass me to someone else," says Dave Dabay, a Dublin, Va., telecommunications worker. He called Disney Interactive four times and sat on hold between 12 and 20 minutes each time.

But Parsons Technology won many readers' respect for its prompt response. "I got a bad disk that wouldn't boot, so I called Parsons," says Francis Davis, a retiree from Alexandria, Va. "They answered on almost the first ring, immediately sent me a new disk, and it worked."

"I couldn't believe how quickly Parsons answered the phone; I was so used to waiting on hold for a long time when I called Dell," says Sharon Dimascolo, a Cranston, R.I., bookkeeper.

As if getting stuck on hold weren't bad enough, what really got readers' goats was having to pay for the privilege of wasting their own time. Many software companies have pulled the plug on toll-free phone numbers for their support assistance centers. Since most support lines are open only during business hours, long-distance charges can mount up quickly.

Jack Arnold, a retired Bell Labs researcher from Loomis, Calif., spent $85 on a single transcontinental call to IBM for help with the OS/2 operating system. "I spent more money trying to get 'free' software support than the

buy the numbers: new labeling for CD-ROMs

When Jim Gallo purchased Disney Interactive's Aladdin Activity Center last Christmas, he expected to pop the program into his CD-ROM drive and watch his kids' faces light up. But the program crashed, the children were crestfallen, and Jim's anger rose.

It took four phone calls to the company before Jim learned that the program wouldn't work on his PC. "Why don't they put everything you need to know to be able to run the program on the label?" wonders the Milford, Mich., automotive technician.

Jim's experience is far too common. "Consumers return as many as 40 percent of all the CD-ROMs they purchase," says Ken Christie, vice president of marketing for the Interactive Multimedia Association (IMA) in Annapolis, Md. To improve customer satisfaction—and help boost its members' profits—the IMA has launched a campaign called CD Match. One of its goals is to establish a standard, easily understood CD-ROM label, similar to the Nutrition Facts box that now appears on all food packaging. The label (see prototype below) would clearly indicate on the box the minimum operating system, CPU type and speed, memory, graphics resolution, CD-ROM drive speed, hard disk space, audio specs and any unusual requirements.

You should see the first CD-ROMs bearing the new labels in stores this spring. The IMA also plans to distribute free software that will scan your computer and let you print out a description of its specs in a form that matches the categories on the product label. That list will come in handy at the store, telling you at a glance whether your computer has what it takes to run the CD-ROM you want to buy. —*J.E.*

IMA Configuration Requirements	
OPERATING SYSTEM	Windows™ 3.1-3.11
CPU TYPE & SPEED	486 DX, 33 MHz
MEMORY	8 MB
GRAPHICS	640 X 480 X 256
CD-ROM SPEED	2X
AVAIL. HARD DRIVE	12 MB
AUDIO	16 BIT, 8 KHz, 22 KHz
OTHER	VFW™ 2.1

program cost in the first place," he says.

Toronto accountant Vernon Paige has the same feeling when he calls Computer Associates for help with its Simply Accounting program: "When I make a call to Vancouver—and spend 10 or 20 minutes on hold listening to music I don't like—it gets expensive quickly." Readers said the best thing software manufacturers and retailers could do to improve support would be to provide toll-free phone numbers.

To avoid phone follies, readers are turning to the support that software companies offer on the Internet and commercial on-line services such as America Online, CompuServe and Prodigy. "I've used CompuServe three or four times for inexpensive support," Vernon says. "Microsoft has been excellent in that regard, getting back to me the next morning after I leave a query. That costs maybe 75 cents or a dollar of on-line connect time. I don't mind that."

Most respondents—84 percent—said they were aware of on-line software support, and about one in four of that group had given it a try. Of those who had tried on-line support, more than half said they were satisfied with the service; only 12 percent found it unsatisfactory.

"I thought it was very scary at first, but once you do it, you see there's nothing to it," confides Janice Barta, an Eden Prairie, Minn., homemaker. "I get all my support on-line now.

I'd rather post a message and come back at my own convenience than be on hold for 40 minutes the way I used to be with Sierra On-Line and Gateway 2000."

While the number of U.S. homes equipped with a computer and modem is still relatively low—only about 18 percent, according to the annual Odyssey Homefront Survey conducted by San Francisco market research firm Odyssey—on-line support may be the wave of the future. It's less expensive for software manufacturers and more convenient for customers; 83 percent of the respondents said they were likely to try on-line support in the future.

Faxing a company for help is another option. When Sandi Morton couldn't get through to Corel on the phone, the Metaline Falls, Wash., computer draftsperson sent a fax outlining her problem and listing her serial number. A technician called Sandi at her office the next day with a solution.

Sandi was more fortunate than most of those

> **Microsoft on-line support is excellent** says one respondent; he gets replies overnight, and it costs only about a dollar.

how we conducted the 1995 software support survey

HomePC's survey of readers' software-support experiences was a joint effort of the magazine's editorial and research departments, with additional input from PC Data, a market research company in Reston, Va. The study was conducted in strict accordance with accepted market-research practices.

Postage-paid survey cards were bound into all copies of our July 1995 issue. By the stated July 31 deadline for replies, we had received approximately 4,000 completed reader surveys—a sig-

nificant response for a poll of this type, which typically is based on a response of 500 to 2,000 individuals.

The geographic distribution and demographic makeup of the respondents to this poll mirror *HomePC*'s overall circulation, validating the respondent sample. The margin of error for this sample of

4,000 respondents is plus or minus 2 percent. Respondents encountered technical problems with a wide variety of software titles from many different companies; no program or company received enough mentions to enable us to draw statistically significant conclusions upon which to tabulate a ranking of all companies' software-support performance.

HomePC's editorial staff designed and developed the survey with the assistance and supervision of the magazine's senior research manager, Michael DeMilt, who helped interpret the results. Musick Research Services, an independent research firm in Hackensack, N.J., edited, coded and tabulated the reader responses. —*J.E.*

surveyed. On average, it took slightly more than a full day to reach the person who ultimately solved the respondent's software problem; one in 10 people reported waiting a week or more. Disney Interactive and Intuit customers were far more likely than the average respondent to wait longer than a week.

Spreading the blame

Many people described their search for assistance as a kind of treadmill run. "When I finally got through to Disney to complain about their Aladdin package, they blamed my Packard Bell computer," says Dave Dabay. "Packard Bell told me it was a Disney problem. I called Disney back; a week and several calls later they grudgingly admitted it was a code issue, and they would get a software fix for my sound card. Here I've got a 6-year-old champing at the bit; how can I explain to him that I'm getting the runaround for a week before they give me an answer?" (For one solution to the "runaround" problem, see sidebar below.)

But reaching the right person is only the be-

call and response: the rise of independent software hot lines

Tom Palmer was stumped. After hours trying

to puzzle out a few confusing features in

Microsoft Word and Lotus 1-2-3, he decided to

call for help. But the Richmond, Va., banker

didn't dial up either Microsoft or Lotus.

Instead, he called PC Helps Support and paid

$2.40 a minute for guidance.

"I was frustrated; then I made one call and got help for both programs," Tom says. "The technician was efficient, and it was well worth the $15 it cost me when I think about how much I might have spent on long-distance calls to Microsoft or on-line charges for 'free' support."

There's been an upsurge in the number of independent software support lines promising to get callers out of a jam. Software makers have helped fuel their growth by charging customers directly for support, or eliminating toll-free numbers and making callers pay hefty long-distance rates only to wait on hold.

But the primary reason customers are turning to independent support companies may be that most of these services don't point any fin-

gers: If you have a conflict between program A and program B, the technicians will solve it rather than blaming the other company and directing you to call there for help.

"The quality of some of these companies' support is up there with what the software publishers deliver," says Bob Johnson, director of software services for Dataquest, a San Jose, Calif., market research company. "But make sure you know what you're paying for before the meter starts running." For example, find out before you sign up if the service supports the operating system you use, and if it handles conflicts between software and hardware. Here are three other key questions to ask and how some popular services answer them:

• *How many software products does the service support?* The IBM End User Support Help Desk (800-964-8523) works with more than 700 PC programs; Digital Equipment's Service-in-a-Box (800-888-4234) supports more than 400 PC and Macintosh programs; some services handle fewer than 100 programs.

• *When are the help lines open?* Software Support (800-756-4463) tackles problems 24 hours a day, seven days a week; PC Helps Support (800-733-2378) is open 12 hours a day, five days a week.

• *How much will it cost?* Some services charge approximately $150 a year for an unlimited number of calls; others bill per problem ($25 is common) or per minute (typically $2 to $3).

Sidney Stogel, a partner in a Boston computer consulting company, chose the $144 annual fee at Service-in-a-Box. He spent 40 minutes on the phone during his first call, when he tried to figure out how to print his Excel spreadsheet in color; he now calls as often as once a month. "They're patient, they ask the right questions, and if they can't figure something out, they research it and call me back in an hour," Sidney says. "It pays for itself in all the time I save during the year." —J.E.

to talk on the Internet,

the conversation

begins with the

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Sound Card

Presenting the new UltraSound Plug & Play Sound Card™ from Gravis. It gives you everything you'd expect from the company that pioneered affordable wavetable technology. In fact, it provides you with more support for all your favorite games and multimedia applications, and more high-quality music sound than other wavetable sound cards. Plus, you get complete Sound Blaster™ compatibility and the convenience of Windows 95 Plug & Play™.
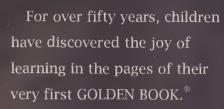
But what really makes this card special? It's the only card that offers full duplex capabilities. Which means you can have simultaneous, real-time verbal conversations–on the Internet. And enjoy amazing cost-savings and unlimited, worldwide accessibility, as only the Internet can provide.

We've bundled our sound card with everything you need to get your Internet conversations flowing. You get the Mosaic™ Web Browser for Internet connection, the Internet Phone™ for dial-up capabilities, Real Audio™ to ensure real-time sound, and even a special microphone. So all you need to do is start talking. And listening. And talking. And saving a heckuva lot of money along the way.

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ginning. It took companies a week on average to solve our readers' software problems—about a day-and-a-half longer than it took to solve hardware problems. Roughly a third of those surveyed said their problem was never resolved to their satisfaction or they were still waiting.

"I got so fed up sitting on the phone for hours trying to get help with Dinosaur Safari from Creative Multimedia that we just don't bother using the game," says Michael Parlberg, a McHenry, Ill., police officer.

"I called WordPerfect three or four times over the course of six weeks to see why I couldn't print labels," says Lillian Brady, a Rightstown, N.J., legal secretary. "They tried several things to get my printer to work, then told me to buy WordPerfect 6.1—I'd bought WordPerfect 6.0 just weeks before. I said the heck with it and use a memory typewriter to print my labels."

In about 20 percent of the cases, our readers solved their problems by getting replacement software from either the manufacturer or the retailer that sold them the program. About one in 10 people simply returned the problematic software for a refund or store credit. (CD-ROM manufacturers are taking steps to reduce returns and solve other problems by spelling out a program's hardware requirements clearly on the box; see sidebar on page 173.)

When asked what caused their problem, readers cited conflicts between hardware and software, a piece of faulty software and a conflict between two software programs, in that order. Some of those polled didn't care what caused their problem as long as the company solved it: One in four said they never found out what caused their software glitch.

Despite all the problems they encountered getting assistance with their software, readers generally praised the support engineers who tried to help. About three of every four respondents rated the support person's attitude as excellent or very good.

"I've called several game companies, and I've never spoken to anyone who wasn't very, very nice on the phone," says Adrienne Talley, a Deadwood, S.D., office clerk.

"Once you get someone to call you back, the people at Disney are very helpful," says Larry Haagsma, a manager at a Sparta, Mich., distribution company. Microsoft technicians received much higher-than-average grades for positive attitude. (For a look at software support from a Microsoft technician's point of view, see sidebar on page 182.)

On the other hand, many of those polled had negative things to say about their experiences with software-support staffs. One in four rated the support person's ability to solve their problem as unsatisfactory, and a like number found the length of time the technician took to fix the

'Once you get someone to call you back, the people at Disney are very helpful,' says one survey respondent.

hardware support staffs get the nod over software counterparts

It's easier to obtain technical support for a PC that's on the fritz than for software that won't work. Fifty-seven percent of those polled said they were satisfied or very satisfied with the software support they received for programs purchased in the past year. But 70 percent were pleased with the support they received for their hardware. And more people were very dissatisfied with software support than with hardware support.

After destroying 20,000 subterranean mutants, 15,000 aliens, and 8,500 enemy spacecraft, wouldn't it be great to create something?

Like music.

You say you don't play music and never took lessons? How much spaceship flight instruction have you had? None–and you still took on the best enemy pilots in the universe.

That's what's great about Yamaha **Visual Arranger** software. If you know what kind of music you like and how to run a computer (Mac or PC) you can create original music in most any style. Just choose your favorite– from rock to country to rhythm & blues. Add chord changes– don't worry, we give you a menu of chords that fit the style.

Then use your computer keyboard to lay down smokin' solo licks. And you can change instruments, re-mix the song, change tempo, even switch to a completely different style (how would that country & western song sound as reggae, mon?).
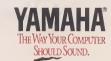
All you need to run **Visual Arranger** is your computer* with a sound card or a General MIDI keyboard. (We also make those, but that's another ad).

So give those aliens, ninjas, gunfighters, and kick-boxers a little time off and run up a score you can really be proud of.

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THE WAY YOUR COMPUTER SHOULD SOUND.
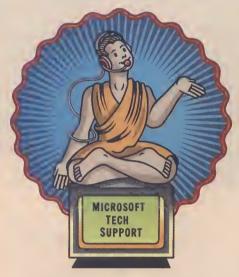
problem unacceptable. Many scribbled angry comments in the margins of the survey form or relayed them to us in phone interviews.

And yet for all that, the respondents handed out generous final grades for software reliability and support. An amazing 74 percent of those polled said they were satisfied or very satisfied with the reliability of the software they purchased in the past year, while 57 percent said they were satisfied or very satisfied with the quality of support for their software.

It seems as if home computer users expect trouble from software, just as people in the 1950s accepted the wavy, snowy pictures on their TV sets. Should buyers simply accept that it's normal for programs to contain bugs? Consumers don't tolerate poor TV reception, noisy interference on phone calls or PCs limited to 640K of RAM; software customers deserve and should expect higher reliability and better support for their money. Voice your opinions in the Software Support folder in our forum on America Online (Keyword: homepc). We'll be watching companies' progress closely in 1996. ●

on the front lines: a day in the life of a software support team

MICROSOFT TECH SUPPORT

Microsoft support engineer Erik Torgerson paces back and forth around his cubicle, stepping as far as his headset cord allows. He rarely stops moving as he fields calls from baffled customers.

He spends 13 minutes giving step-by-step instructions on how to install the Automap program— click here, then click on this icon, then click there, says Erik, never bothering to glance at the three computers on his desk. He knows

this program—and the 33 others he supports—as well as the road he travels daily between work and home, and can communicate his expertise in simple terms with PC users who call for help.

As befits the world's largest software company, Microsoft operates the biggest software-support organization. Its 4,000 in-house and contract technicians handle more than 43,000 calls a day. The operation costs the company $600 million a year, even after deducting the fees it obtains charging some customers for phone support.

"We try to get a caller to an engineer in no more than two minutes and resolve the problem on the first call, which we do about 95 percent of the time for our home products," says Deborah Willingham, vice president of support. She acknowledges that some callers waited more than an hour for help in the first weeks after Windows 95 debuted on August 24, but when we checked in early September, no caller waited longer than six minutes.
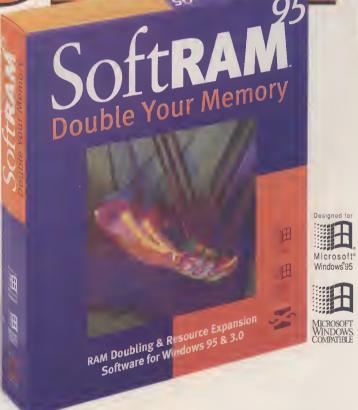
The vast majority of the company's support staff look like scruffy college students. They seem to relish hunting for bugs and rescuing crashed computers, even if frustrated callers yell at them from time to time.

David Moller, who takes calls on the Windows 95 support line between 3 p.m. and 2 a.m., typically spends about 30 minutes with each caller, though sometimes a solution can take more than an hour. He's patient and doesn't rush customers off the phone; Microsoft judges the performance of its support staff on customer satisfaction rather than the number of calls handled in a day.

Occasionally, David gets stumped. If the customer has called on the 900 line, where help costs $1.95 a minute, David puts him or her on hold while he looks up information or yells over his partition for a colleague's help; customers don't pay for time on hold. When David can't solve a problem, he promises a more experienced engineer will investigate and call the customer within four days.

Once in a while, a technician receives a call that's amusing enough to share with the rest of the staff. There was the woman who kept stepping on her mouse, thinking it was a foot pedal, and the guy who stuffed two disks into his floppy drive because the installation told him to insert disk two but never said to remove disk one first. It's all in a day's—or night's—work. —*J.E.*

double click. double memory.
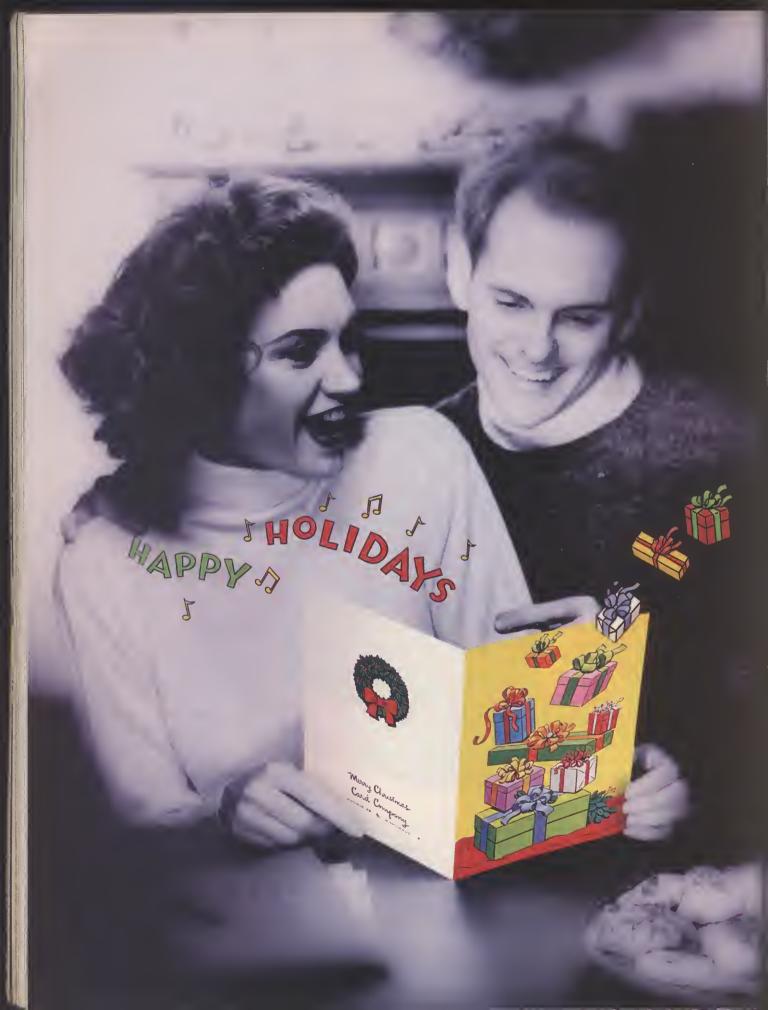
■ Doubling RAM doesn't have to be hard. Install SoftRAM⁹⁵ and instantly speed up Windows 95 *and* Windows 3.0 and higher. Run multimedia and RAM hungry applications. Open more applications simultaneously. Say good-bye to "Out-of-Memory" messages. 4MB becomes at least 8MB. 8MB becomes at least 16MB. Get the idea? (In fact, you can get up to 5 times more memory.) SoftRAM⁹⁵ works with all 386 and higher desktops and laptops. *PC Novice* calls SoftRAM the "real RAM doubler for Windows." Executive Summary: Don't Run Windows Without It.™

syncronys

SoftRAM⁹⁵ is now at resellers everywhere or direct from 1-800-691-7981.

CIRCLE READER SERVICE NUMBER 100

multimedia Greetings

Animation software lets you send best wishes in mini-movies. Here's the scoop on four programs that push the envelope, with ideas for making a 'moving' card yourself.

BY CAROLYN JABS

Shortly after Thanksgiving, a trickle of greeting cards tucked between the bills and catalogs in the mailbox grows into a steady stream of daily surprises. We catch sight of a colorful envelope in the stack and can't wait to see whom it's from, how the card inside looks and what the greeting says. Some cards are breathtakingly beautiful. A few bring coveted letters from friends or family far away. Others betray almost no emotion at all—best wishes ring hollow over prefab signatures.

To give friends and family a special treat this holiday season, use your home computer to send original greetings unlike any they've seen. Using animation software, you can create multimedia cards that come alive on the recipients' computers. These programs let you add music and sound effects to your text and graphics. More impressive, they make your card *more*. For example, you can have your greeting drop on screen letter by letter, or float entire words into position. You can make a bird fly or a train chug simply by dragging a pre-animated item into place and putting it into motion. A

series of scenes in your greeting, played in sequence, can look just like a movie.

Some animation programs are tricky to master, but I found several that will put dabblers perfectly at ease. Each includes drawing tools, background options, graphics, animated actors, sound effects and music.

Every program has you start by building a scene, or page, which can be as simple as a colorful background or as elaborate as a scanned photo portrait. Then you add the action, which may be as basic as a drawing that appears line by line, or as ambitous as a choreographed troupe of animated actors doing a holiday dance. You can add sound effects, and experiment with visual tricks such as wipes and dis-

three scenes, using materials readily available in your program's library.

Studio M

Far and away, the easiest program I saw to animate a greeting card is Studio M, which includes not only basic animation tools, but

On your first try, the trick is to keep it simple.

Limit your card to two or

three scenes.

also a series of predesigned templates similar to those in the popular Print Shop Deluxe and Print Artist programs. The templates include a premade short animated greeting with "placeholders"—to personalize the animation, simply drop your message, graphics and photos (if you have a scanner) into place. Basic instructions for customizing the card are found in easy-to-follow word balloons. You can further modify the template by adding text, or dropping in animations, music or sound effects that are stored in the Studio M libraries.

Of the 50 templates in Studio M, six are suitable for Christmas greetings. Although the program promises choices ranging from silly to serious, the kind of offbeat

Instructions in Studio M pop up in easy-to-read word balloons.

solves. Finally, you decide how long each scene will be and how many you'll string together for your presentation.
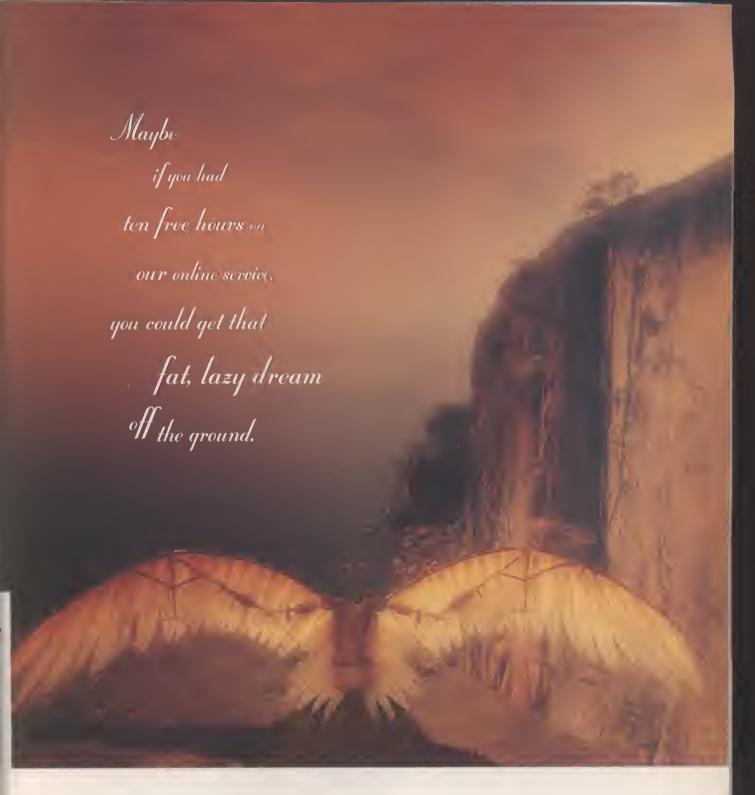
For your first stab at multimedia card-making, the trick is to keep it simple. You should try to convey your message in two or

humor found in studio cards dominates the selection. One card features "The Twelve Daves of Christmas"—scan in your own photo to become any or all of the 12 Daves, including a cop and a Deadhead. The card is easily adaptable for women named Kay or

Studio M's templates favor the kind of offbeat humor found in studio cards. "Seasoning's Greetings" (above) fits on a single disk, and the recipient doesn't need Studio M to run it.

Maybe
if you had
ten free hours on
our online service,
you could get that
fat, lazy dream
off the ground.

Because we are the only online service that offers full internet access, easy-to-use email and unsurpassed content, we have become a vital connection between people and their dreams. And right now, you can have 10 free hours to fly anywhere you'd like on this powerful service. Visit over 3000 sites. Sit in on countless forums. Surf the Net. Whatever you want to do, you can do it free for ten hours your first month. After that, a CompuServe membership is yours for only $9.95 a month; and only $2.95 an hour after 5 free hours of access every month. So give your dreams wings. Give them CompuServe.

For a free membership kit, mail the reply card or call 1-800-487-0588.

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CIRCLE READER SERVICE NUMBER 13

families named Ray—you get the idea. Another card that can fit any winter holiday begins with a multimedia fanfare and dissolves to a hearth with an animated fire. The punch line: "With multimedia like this, who needs TV?" A template that contains an invitation to a New Year's party could be converted into a card easily. My personal favorite is one

If Studio M's templates don't cheer you, you can design a card from scratch using clip art.

that shows a rack of singing spice jars with the message "Seasoning's Greetings."

When you save your greeting, you have the option to "Save As Self-Running" on a high-density (1.44-MB formatted) disk. Essentially, this creates a program that runs itself and "plays" the animation, so the card's recipient won't need a copy of Studio M to "read" it. Most of the templates are designed to fit on a single disk; if your production takes up more space, on-screen instructions will tell you how to save it to a second disk. Your greeting can be played back by anyone who has a minimum 386 PC with 4 megabytes (MB) of RAM, Windows 3.1, a 256-color driver for the graphics card and a Windows-compatible sound card. The program comes with nine convenient playback-instruction labels; affix one to the disk before you mail it.

Studio M also lets you send your greeting by electronic mail. The manual includes detailed instructions for sending your multimedia greeting over various on-line services or the Internet; for the most part, it's as simple as attaching the file to an e-mail message. The recipient can play the card just by down-

loading the file and double-clicking on its name or icon in Windows.

If the templates in Studio M don't tickle you, choose No Template and start from scratch, drawing on the program's ample libraries of clip art, sound effects, music and animated graphics. You can also scan in your own art or family photos, record your own audio with a microphone if you have a sound card (you can buy a mike for as little as $20), and even insert stills or segments from home videos if you have a video-capture card.

One easy way to create a card from scratch is to make a gradient background by mixing green and white. Then use the Text Option to type Merry Christmas. Choose an appealing font and make the letters red. Next, select Modify Object and click on Transitions. To the left of the screen, you'll see a list of ways to present type on the page; for example, Slider makes the letters appear to slip out of a slot in the middle of the page, and Random Pixels reveals your words on the screen a few dots at a time.

Once you choose an effect, select Modify Page, then Duration, to indicate how long you want the words to linger on the screen. Next, create a second page with Merry Christmas written in a different language, and choose a different font and transition. Make as many of these pages as you like. Set them to music, such as the Holiday 3 selection you'll find by choosing Sound, then Disk. If you have a microphone, try recording your kids singing the first line of a Christmas carol in the different languages. On the final page, add the greeting, "No matter how you say it...Have a Wonderful Christmas."

Director's Lab
Studio M is meant for grown-ups. It has a comprehensive help menu that will feel familiar to any Windows user. Its sound effects

Studio M lets you send your greeting by electronic mail. For the most part, it's as simple as attaching a file.

and artwork are polished and, frankly, a little predictable. If your household includes an adolescent, or an adult with a slightly skewed imagination—and the card's recipient also has a taste for offbeat humor—you may prefer Nickelodeon's Director's Lab, a surprisingly sophisticated animation tool for people who revel in Gak—and even some of us who

Superb quality. Dependability. High performance. Compatibility. Unbeatabl[e]

HAPPY HOLIDAYS ♪♫

aren't familiar with that gooey concoction, but have a silly streak.

If you're not a Gak fan, some of the things that make Director's Lab attractive to kids may annoy you. For example, the help screens feature a young Nickelodeon star nodding toward the various features around her and explaining what they do.

Whether you like its style or not, you can't help but be impressed by the number of choices in Director's Lab's five libraries, which are crammed with unusual stamps (images), titles, video clips, music and sound effects. Each library contains 10 categories, including Animals, Vehicles, Sports and Stuff I Made. You'll find wilder items, such as a video of a Geyser of Gak and the sound of Wet Lips, in the categories labeled Nick Universe and Junk Drawer.

The Holidays and Events category has several items perfect for Hanukkah and Christmas. Director's Lab doesn't have templates, but it provides sample videos of unconventional holiday greetings to inspire you. The elements are tailor-made for a card that's shocking, satirical or downright goofy.

To start, either alone or with your child, try creating a card based on the classic poem "The Night Before Christmas." Make a title page in the Title Editor room. Then go to the Video Suite; in the Video library choose Holidays and Events, where you'll find a short clip called Holiday Zoom (a camera shot that

Nickelodeon's Director's Lab will help you make terrific holiday cards, albeit with a decidedly irreverent approach to the season.

Director's Lab's three-second audio limit is long enough to record a cute phrase to go with the visual.

moves from a hearth to a snowy scene outside the house). Click on the clip to select it, then hit the Reverse button on the control panel to run it backward, so the viewer feels as if he or she is going into the house.

Although you can add text from the Title Editor room to your video, it's more fun to record your own narration (the program doesn't include a microphone, however). The Sound FX Studio limits you to a three-second sound bite, but as it happens, that's just

enough time to recite, "Twas the night before Christmas and all through the house..."

Now bring the title page, video, and text or narration into the Director's Lab, where you'll see six timelines; they'll look like filmstrips when you select them. Click on the Titles strip and drop your title into the first frame. (Add a blank screen to the second frame, or the title will stay in the background throughout the video.) Click on the Video strip and start your zoom video in the second frame. Finally, click on Sound FX and insert your voice into the frames that contain the zoom video.

Now head for the Graphics Studio and pull out graphics of sedentary animals such as the eel face, the fuzzbird or the porcupine. Record a soundtrack of yourself saying, "Not a creature was stirring except for..." In the final frames, record *"The blob!!!"* in your most horrified-sounding voice, and follow it with the Scream from the Nick Universe category in the Sound FX library.

Create a graphic for this section in the Graphics Studio. Go to the Graphics library, and in the Holidays and Events category choose Xmas Stuff—a picture of Santa with Christmas ornaments. Then cover the picture with a small green circle that gets bigger in each of three frames until it engulfs Santa. In the final frame, add something like, "Have a frighteningly good holiday!"—and don't forget to add your name, so your recipient knows just who's responsible.

This production, which was inspired by my own 11-year-old son Bert's first effort at animation, probably won't win points for good taste, but it's fun to put together and a blast to watch. The main problem with Director's Lab is that it runs best in DOS, where memo-

ry is in short supply; the program needs at least 540 kilobytes (KB) of conventional memory and 2 MB of expanded memory. In addition, you can't resize art, so you have to use the stamps and animated clips as they are, and it can be difficult to edit the timeline.

On the plus side, the program includes a Video To Go option that makes it easy to

In Director's Lab's Video Suite, you edit your work frame by frame into 'filmstrips' (at top).

send a copy of your card to friends and family. Be sure to turn this option on *before* creating your greeting by going to the Screening Room and flipping the switch in the upper left corner. This ensures that when you pull together your video, the program will auto-

should find your greeting card stored in Stuff I Made. Click the green Save button. It will prompt you to insert the first of two floppy disks; you'll get the best results if you use blank, preformatted disks. The second disk will hold the card; the first will include the drivers needed to make your video play on any 386 or faster PC with 540 KB of conventional memory, 2 MB of expanded memory, DOS 4.0 or later, a Sound Blaster-compatible sound card and a 256-color video driver.

When you mail out your disk, be sure to explain that it must be installed from DOS. To see your greeting, the recipient needs to insert the first disk in the floppy drive and switch to the prompt for that drive (either *A:* or *B:*), then type "install" and press Enter. The installation program will prompt the recipient to insert the second disk. When installation is complete, the prompt *C: VID-TOGO* appears. By typing in "play" and pressing Enter, your friend or relative will be able to view your card.

Magic Theatre

Magic Theatre doesn't have a timeline or elaborate studios, yet its simplified format may make it the perfect program for younger children and for adults who'd rather not spend the whole holiday season fiddling with special effects. My 7-year-old daughter, Jessie, was able to make her own movie within minutes of sitting down with the program. But make no mistake: Magic Theatre is easy, not simplistic. Each time the program opens, you're treated to a short feature that gives you lots of intriguing examples of what you can do with the program. (If you
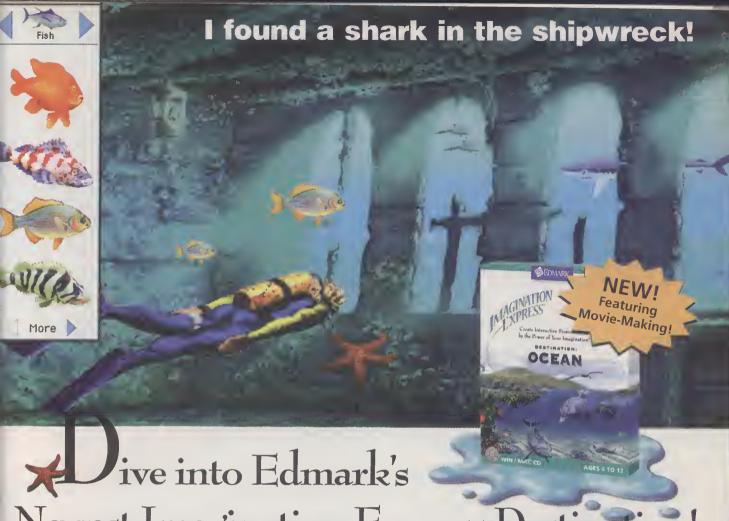
Magic Theatre's easy-to-use format makes it a good choice for kids, or for adults with little time to learn the ropes. You'll find lots of library images, and you can record audio to go with them.

matically limit its length to fit on one disk, or about 12 frames, depending on how many video clips you use. Keep an eye on the empty/full bar in the lower left as you work; it'll show how much room you have left.

When you finish your greeting, return to the Screening Room and click on Get. You

want to skip this demonstration, you can cut it off by clicking on the Stop button.)

You'll get the best results with Magic Theatre if you think like a child. Jessie, for example, got tremendous pleasure from drawing with the marker tools—each has a sound that's incorporated into the animation auto-

matically—and then watching her picture reappear line by line on the screen. You can use this very basic technique to good effect in making holiday cards. For example, to make a Hanukkah greeting, use the dotted-rainbow spray can to draw a simple menorah—basically a saucer on a stand. The music for this tool has a charming, magical sound. Next, use the bright-rainbow spray can to draw eight lines, or candles; each candle springs to life with a wonderful sweep on a harp.

Next, choose an animated figure from the Animation library designated by the Fish

and click on the Pause button. Use the widest white marker to make the man disappear. Repeat the process with seven other animated figures until all the candles are lit. Then add a final scene with a text greeting such as, "We hope your Hanukkah is filled with unexpected joys!"

A similar approach can make a jolly Christmas card. Start with the outline of a fir tree drawn with the green marker. Fill your shape with green. Then have animated figures march up to the tree and "hang" ornaments chosen from the Magic Brushes section. Or, do

To make this menorah scene in Magic Theatre, Carolyn drew the basic shape, and by dragging the mouse, she had the walking man and other Animation library characters light the candles.

icon. I began with the walking man, but you can use anything from the swimming turtle to the little girl jumping rope. By holding down the mouse button and dragging your character across the page, you'll create animated movement. Stop the character when it reaches the farthest candle and release the mouse button. Open the Magic Brushes library (designated by the wand) and select the flame. Click once to position a flame over the first candle. Now save the scene. Play the movie until you come to this point

your own version of "The Twelve Days of Christmas." Magic Theatre doesn't have stamps for partridges and milkmaids, but you could have, say, six spacemen landing and four dinosaurs roaring.

The microphone included with Magic Theatre makes it easy to record voice messages to accompany your animations. For instance, your child could recite: "On the first night of Hanukkah, father lit the candle," and so on. Or the entire family could sing "O Christmas Tree" as your animated tree is being decorated. Just remember that narration adds substantially to the storage space needed by your animation. A narrated production requires approximately 600 KB of storage per minute; without narration, movies need 5 KB of storage per scene.

Although Magic Theatre is likely to provide years of creative fun for younger kids, it will eventually frustrate more ambitious animators. Among other things, you can't change the size of the existing stamps and animations. Overall, its editing capabilities are extremely limited.

Magic Theatre also requires

Get a multimedia card on AOL

We've created an animated holiday card just for you. You'll find it on America Online in the DOS/Windows section of *HomePC*'s software library (Keyword: homepc), in the Holiday Cards folder. And there are
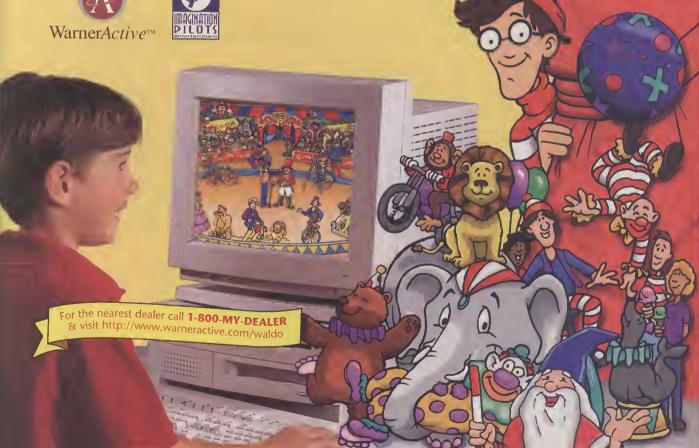
fireworks galore in a New Year's card that you can download for someone special. Both cards were made using Studio M; each takes 10 minutes to download and send by e-mail.

Learning With The Greatest Of Ease.

some ingenuity if you want to share an animated greeting with friends. Each movie you make is saved automatically to your hard drive; if you want to copy it to a floppy disk in Windows 3.1, you must open File Manager and look in *C:\mtheatre\movies* (assuming you installed the program on your C: drive); in the Windows 95 Explorer, look for the Mtheatre folder, and within

that, the Movies folder. Magic Theatre assigns each movie a number. Your most recent production will have the highest number; find all files with that number and copy them to your floppy.

To play Magic Theatre files, the program must first be installed on the recipient's PC. Fortunately, the relatively low cost of this program makes it a reasonable gift to send along with your greeting. When you mail your "card," tell the recipient to load Magic Theatre and then download the contents of the floppy disk into the Movie file in the program—the path is *C:\mtheatre\movies*. Then, not only can the recipient watch your animated greeting, but he or she can make one to send you in return.

Amazing Animation for the Mac includes a storyboard showing each scene, for easy edits.

Amazing Animation

Amazing Animation, available only for the Macintosh, has all the ease of Magic Theatre, more sophisticated capabilities, and few, if any, of that program's limitations. Among other things, Amazing Animation includes a storyboard—a series of screens showing each scene you've created, so you can go back to edit or reorder scenes. You can also resize stamps, fix mistakes and save movies in a

number of formats (Scrapbook, Pics and QuickTime) so they can be viewed on other computers, including PCs running Windows.

With each of these programs, your multimedia greeting cards are limited only by your imagination and time—and a disk's storage capacity. Although the programs greatly simplify the labor-intensive art of animation, it's still going to take time to locate and coordinate the sounds and pictures you want. Also, as anyone who's ever made a flip book knows, the illusion of animated movement is created by looking quickly through many pictures in which tiny changes have been made. Storing all those pictures takes lots of space, a fact you'll need to remember if you're hoping to cram your final creation onto a single floppy disk. Despite these caveats, animated greeting cards are a wonderful way to use a PC to capture the magic of the season—both for the people who get to make them and for those who get to watch them. ●

Carolyn Jabs is a HomePC *contributing editor. You can send her your comments on this story—or even your multimedia greetings—by e-mail at* carolynhpc@aol.com.

shopper's guide

Here's how to get more information on the animation programs mentioned here.

Amazing Animation
Claris, (800) 544-8554, (408) 987-7000
$39.99 (Macintosh, Macintosh CD-ROM)
Circle #535

Director's Lab
Viacom New Media, (800) 469-2539, (212) 258-6000
$59.99 (DOS CD-ROM) *Circle #536*

Magic Theatre
Knowledge Adventure, (800) 542-4240, (818) 542-4200
$39.95 (Windows CD-ROM)
Circle #537

Studio M
Gold Disk, (800) 982-9888, (408) 982-0200
$49.95 (Windows CD-ROM) *Circle #538*

Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

by phillip robinson

The Explorer FILES

Discover how File Manager's successor

can ensure your data never

again becomes uncharted territory.

True to its name, Windows 95 Explorer—one of the operating system's new file-management tools—helps you discover more efficient ways to connect with your PC programs and data.

If you've ever used Windows 3.1's File Manager, Explorer will look familiar; the way you view and work with your PC files will be similar as well. Like File Manager, Explorer shows you how files fit into the big picture. It uses an organizational tree to depict relationships among individual files, groups of files (known as folders or directories) and the drives on which they reside (hard disk, floppy and CD-ROM). Explor-

er's clear overview of the files in your system provides its main edge over My Computer, Windows 95's other new file-management tool. However, computer users who are just getting their feet wet at the PC or who cut their teeth on the Macintosh may find My Computer's icon-based approach easier to use. To start My Computer, double-click on its icon in Windows 95's main screen.

If you'd rather stick to File Manager, Windows 95 lets you have your way, although you have to dig a bit to find it: Go into Explorer and click on the Windows folder on the left side of the screen, then double-click on the Winfile file-cabinet icon on the right.
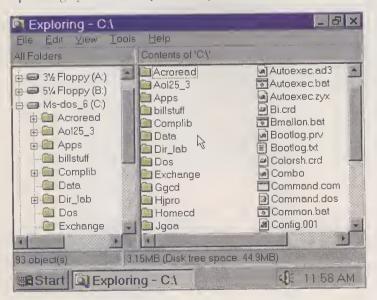
Be aware, however, that if you use File Manager, you'll miss out on some handy features exclusive to Explorer—including new search options, and a toolbar that lets you carry out common file-management commands quickly by clicking on various icons. Whether you're new to Windows or upgrading from an older version, it pays to explore Explorer. The first tips below will help a novice get rolling: they're followed by hints for intermediate and advanced users who want to take a deeper look at the productivity gains Explorer makes possible.

beginners' tips

1 Explore your folders and files.

Click on Windows 95's Start button; when the menu pops up, highlight Programs—no clicking necessary—to bring up another menu. Drag your cursor to the bottom of the second menu and click on Windows Explorer. The operating system takes you to Explorer's main window, which displays all of your computer's drives—hard disk, floppy, CD-ROM and/or whatever is appropriate for your particular setup—as named icons. Folders are indented under the drive on which they reside.

2 Open your folders.

The Explorer window is divided into two parts, or "panes": Think of the left side as the aerial perspective, while the right shows a close-up. When you click on a folder on the left side of the Explorer window, the files within that folder will be listed on the right. If a folder on the left has a plus sign next to it, that means it holds additional, or "nested," folders. Click on the plus sign to expand that folder, so you can see what folders are sitting inside it; click on the minus sign to collapse the folder.

3 Have it your way—create and name your folders.

Folders help you organize all the data and programs stored within your PC. To create a folder, you must first decide where you want to store it—either on a drive or within another folder. Then, go to the left side of the Explorer window and click on the drive or folder you want. Next, go to the File menu and choose New, which will bring up another menu; drag your cursor to that menu and click on Folder. A new folder will appear in both the left and right panes of the Explorer window; on the right side, its label will be highlighted, allowing you to type in a name. When you've named the new folder, press Enter. (If you change your mind and want to rename a folder or file, just click on the icon for its drive or folder, then on the folder or file name; type in the new name and press Enter.)
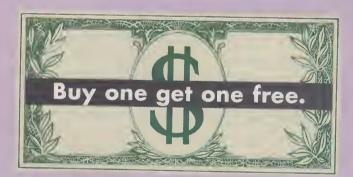
4 Get fancy with file names.

One of Windows 95's best new features is its ability to give your files long names—you're no longer limited to eight characters with a three-character extension as in Windows 3.1. With Windows 95, you can call a file "June Bake-off Results" instead of something more cryptic like "bake6.doc." Windows 95 can handle file names of up to 255 characters (it doesn't matter whether you use upper- or lowercase letters). You can also use characters that are off-limits in Windows 3.1, including blank spaces, plus signs, commas and square brackets. But to see each longer file name in its entirety, you

| Exploring - C:\ |
| File Edit View Tools Help |

All Folders — Contents of 'C:\'

- 3½ Floppy (A:)
- 5¼ Floppy (B:)
- Ms-dos_6 (C:)
  - Acroread
  - Aol25_3
  - Apps
  - billstuff
  - Complib
  - Data
  - Dir_lab
  - Dos
  - Exchange

Contents of 'C:\':
Acroread, Aol25_3, Apps, billstuff, Complib, Data, Dir_lab, Dos, Exchange, Ggcd, Hjpro, Homecd, Jgoa | Autoexec.ad3, Autoexec.bat, Autoexec.zyx, Bi.crd, Bmallon.bat, Bootlog.prv, Bootlog.txt, Colorsh.crd, Combo, Command.com, Command.dos, Common.bat, Config.001

93 object(s) 3.15MB (Disk free space: 44.9MB)

Start | Exploring - C:\ 11:58 AM

may have to resize your window or scroll the window's contents to the right.

5 Be careful—long file names sometimes cause confusion.

You can use long file names only when you're working with files in Windows 95 or using programs designed for the new operating system. This poses some problems if you're still running Windows 3.1 software or sharing files with someone who's still using the older operating system. If your Windows 95 file name exceeds Windows 3.1's eight-letter maximum or includes symbols the older system doesn't recognize, your file will be assigned an "alias" made up of the first six letters, a tilde (~), a number and an extension indicating the file type. For example, Windows 3.1 turns my Windows 95 file called "New story ideas, Dec. 95"

into *New_st~1.doc*. That alias becomes the "official" name—even when I view the file in Windows 95—if I share the file with anyone who uses the DOS or Windows 3.1 Copy or Backup command on the file while they're working with it. Worse, if I copy *New_st~1.doc* to a folder that includes another file with that name, the file's name will be changed to *New_st~2.doc* automatically and I won't know a thing about it. Until most programs and people have adopted Windows 95 as their operating system, when you use long file names in Windows 95, consider how they might be abbreviated under Windows 3.1.

6 Drag-and-drop to organize files.

The easiest way to move existing files and folders into new folders is to drag them over using your primary mouse button (for righties, that's usually the one on the left). You can drag one

Exploring WINDOWS 95 BOOKS AND OTHER GUIDES

Windows 95 may indeed be simpler to learn and easier to use than Windows 3.1, but no one's an instant expert. If you need some pointers, consider one of the books or interactive tutorials listed below, which stand out in the flurry of new guides that aim to shed light on Windows 95's features.

Windows 95: The Visual Learning Guide by Grace Joely Beatty and David C. Gardner ($19.95 from Prima Publishing, 800-632-8676, 916-632-4400). Rather than overwhelm their readers with endless, uninviting pages of text, the authors pepper their guide with big, colorful screen images, punchy explanations and helpful arrows pointing to the relevant icons, menus and commands.
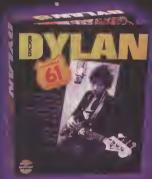
Windows 95 in a Day by Jeff Weber ($19.95 from Weber Systems, 216-591-9449). More sedate-looking than *The Visual Learning Guide*, this volume offers 10 lessons that take you from startup to more advanced subjects, such as sharing information between programs. Each lesson includes exercises and a quiz.

If you're ready for greater challenges, try *Windows 95 Made Easy: The Basics and Beyond* by Tom Sheldon ($27.95 from McGraw-Hill, 800-722-4726, 212-512-2000). This 700-page behemoth tackles subjects such as faxing and the Internet. It may be slow going for beginners, though, because it has lots of text and fewer pictures than the two books above.

If demonstrations help you learn, check out one or more of ViaGrafix's six tutorials in the *Windows 95* series ($49.95 each for videocassette or CD-ROM; $219.95 for the set of six, from ViaGrafix, 800-842-4723, 918-825-6700). The discs run under Windows 3.1 or Windows 95; both versions include interactive lessons. The videocassettes are packaged with a floppy disk that contains PC tutorials. —*P.R.*

file or folder at a time—moving a folder takes along every other folder or file that's in it—or several folders that you group together. To select items that are listed consecutively, click on the first item, hold down the Shift key, then click on the last item. Those two files or folders will act as bookends; they and everything listed between them will be highlighted. To select items scattered around the list, hold down the Ctrl key and click on each item you want. Then, to move the highlighted items, place your cursor on one of the selected items, hold down the mouse button and drag it to the new folder—all the other highlighted items will tag along; release the mouse button only after the destination folder is highlighted.

7 Try two ways to copy files.

If you want to copy one or more files from one folder to another, first select the items as described in the previous tip, then place your cursor on a selected item. While holding down the primary mouse button and the Ctrl key, drag the item to the new folder. You can also copy files using your secondary mouse button (for righties, that's generally on the right). Select the items and hold down the secondary mouse button as you drag them; this is called right-dragging. When your cursor is on the destination folder, release the button. A menu will pop up that lets you choose Move Here or Copy Here.

If you're copying files from disk to disk—say, from your hard drive to a floppy—there's no need to right-drag. Windows 95 considers any dragging between disks as a command to Copy, rather than Move.

8 Create a folder to store commonly used files.

Say you produce a monthly newsletter that contains a logo and masthead you use in every issue. To save time locating and accessing files

you use regularly, store them in a "common" folder. First, create a new folder. Then select the files you expect to use frequently. Right-drag them to the new folder and choose Copy Here.

9 Use your toolbar to issue common commands quickly.

Choosing options from a menu is a great way to see all possible commands at a glance, but it's not as quick as a single click. If you're carrying out a common file-management command, aim your mouse at the toolbar—the line of icons near the top of the Explorer window. (If you don't see it, click on View, then on Toolbar.) Highlight the file you want, then click on the appropriate icon to tell Explorer what you'd like to do with it. You can use icons for operations such as Cut (the scissors), Copy (the two overlapping pages), Paste (the clipboard with the little page), Delete (the X) and Undo (the curved arrow pointing backward).

10 Recycle your unused files and folders.

When you no longer need a file or folder, select it and drag it to the Recycle Bin on the main Windows 95 screen. Items in the Recycle Bin sit on your hard disk until the Bin either runs out of room or you tell the system to empty it (double-click on the Bin, go to the File menu and click on Empty Recycle Bin). If you want to retrieve a file, double-click on the Bin icon to see

what's in it. If the file you're looking for is there, simply drag it out of the Bin and take it back to a folder or disk.

11 Dispose of the real trash.

If you're certain you no longer need a file or folder, select the item and choose Delete from

the File menu or press the Shift and Delete keys simultaneously. Permanent deletion is a very good idea for large files you're sure you won't need anymore: if you stash those files in your Recycle Bin indefinitely, they'll hog up precious disk space that could be used by files you need.

12 Quit the Explorer when you're finished with it.

Explorer eats up memory and slows processing time. When you're not using it, close it: Click on the "X" in the top right corner of the Explorer window or choose Close from the File menu.

intermediate tips

13 If you can't locate a file, use the Find utility.

Have you misplaced a file? Don't sweat it. Just like Windows 3.1, Explorer has a utility program that lets you search for a file by its name. Click on Tools and highlight Find, which calls up a menu. Highlight and click on the Files Or Folders option. When the Find: All Files window appears, simply type in the name of the file or folder you want (or even part of the name) and where you think it might be—say, on your hard drive or a floppy disk in use. To do a thorough search, make sure the Include Subfolders box is checked; if it isn't, click on it. Then click on Find Now.

14 Try two new search tools.

Windows 95 provides new search features that can also locate files by date and by content. To search by date, go to the Find utility's Find: All Files window and click on the Date Modified tab, then specify a time frame. For instance, if you know you worked with the file recently, you could narrow the search (and speed things up) by instructing Explorer to look only for those files that were created or modified in the past two days.

To use Explorer's Find program to search by content, type in a keyword and the system will try to match it to the files it sees on your hard drive and floppies. Click on the Advanced tab, then go to the Containing Text area and type in a keyword or phrase you think you used in the file you're seeking; you can use numbers, too, which comes in handy if you're hunting for spreadsheet or database files. Click on Find Now, and Explorer will list all the files containing that particular phrase or number. You can open any of these files by double-clicking on them. If you

know what type of file or folder you're looking for, you can speed the search. Click on the arrow at the end of the Of Type line and choose one of the file types listed.

15 Save time by opening files instead of programs.

Windows 95, like Windows 3.1, automatically associates a file with the program that was used to create it. This means that in Explorer, you can open a program and file in one easy step. Let's say you've been using your word processor to write a document. The next time you go to work on that document, you don't have to find your word-processing program, double-click on it to get it running, search for the doc-

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ument you need and then click on the name. Instead, locate the document in Explorer, then simply double-click on the file to launch your word processor and open the document simultaneously. The program and file always remain associated; moving files from one folder or disk to another will not disrupt the link.

16 Don't make moving files a drag.
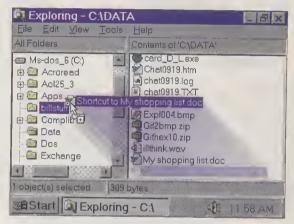
If you don't like dragging the mouse, or you want to move or copy files to a folder buried within another folder, try using cut-and-paste instead. Use the secondary mouse button to click on the file you want to move or copy. A menu will pop up giving you a choice to Cut or Copy; highlight your choice, then click on your selection with the primary mouse button. Click on the folder to which you'd like to send the file using the secondary mouse button. When a menu pops up, click on Paste using the primary mouse button. (You can perform the same cut-and-paste action using the Edit menu.) If you choose Send To from the same menu you used to choose Cut or Copy, you can immediately copy a file to a floppy disk, fax it or include it in e-mail.

17 Save disk space with shortcuts.

Explorer's shortcuts let you quickly access one file from different folders without duplicating the file (which uses a lot of disk space); each file shortcut takes up only about 1 kilobyte of space. For example, to call up the most recent draft of a story I'm writing from either my To Do folder or my Writing Projects folder, I keep the original document in Writing Projects and create a shortcut for my To Do folder.

To set this up, click on the file, then go to the File menu and select Create Shortcut. A new file named "Shortcut to" followed by the original file name will appear in the file listing for that folder. Now, move the shortcut file anywhere you'd like. When you double-click on the shortcut, it automatically retrieves the file and displays it on your screen.

18 Look at files in new ways.
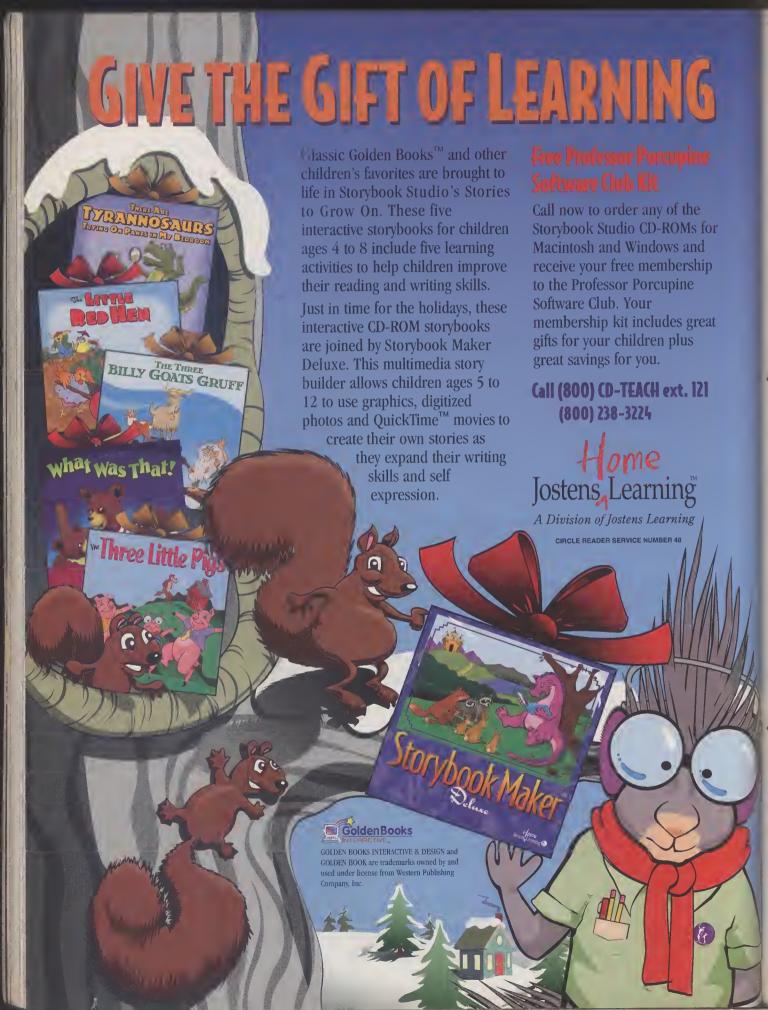
You can look at the files on the right side of the Explorer window in several ways. The default setting is List, which fits as many files as it can in the window. If you want more information, click on the View menu and choose the Details view, which offers brief descriptions of your alphabetized files. Clicking on the Size button in this view lists files by the number of bytes they contain; the Type button sorts by file type, such as application or text document; and Modified sorts by the date and time of the most recent file updates. Clicking on each setting's button shifts the list to show files in either ascending or descending order.

19 Protect files with Properties

Windows 95 lets you define the attributes of a file so it can be read, but not changed. You can also choose to exclude a particular file from your file listings, so that a casual observer won't even know it's there.

Click on the file you want to protect using the secondary mouse button. A menu will pop up; use the primary mouse button to choose Properties. (You can also choose Properties from the File menu.) Click on the Read-only checkbox to safeguard the contents of a file

from changes, or on the Hidden checkbox to exclude the file from your listings. These changes will take effect after you reboot Windows 95 or "refresh" your listings by going to the View menu and choosing Refresh. To see a list of the files you've hidden, go to the View menu and choose Options; when the window pops up, select Show All Files. (Of course, if someone else follows these same steps, your "secret" files will be revealed.)

20 Resize your Recycle Bin.

This isn't strictly an Explorer tip, but it's an important point to remember. Since the files stored in your Recycle Bin take up disk space, you may want to reduce the total amount of space allotted to the Bin.

If your Bin is full, Windows 95 will make space by erasing the files that have been in the Bin the longest. The Recycle Bin's disk-space allotment is preset at 10 percent. But if you don't want 10 percent of your disk space tied up with files you presumably have decided you don't want to see again, you can adjust that percentage. Use the secondary mouse button to click on the Recycle Bin. When the menu pops up, use your primary mouse button to click on
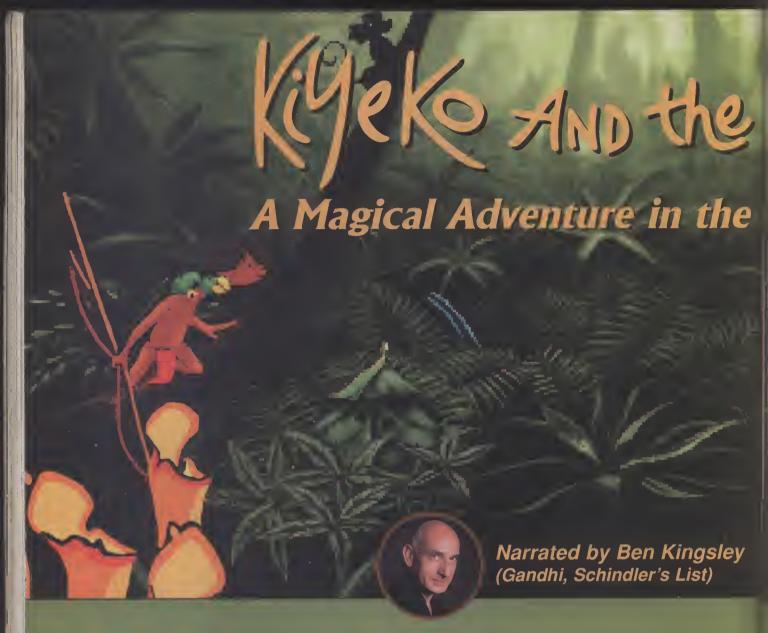
Properties; move the slider to indicate how much of your disk space you want to devote to the Recycle Bin, then click on OK. The 5-percent setting suits me (and probably most people) just fine. But 1 percent is

pretty small—unless you're the type who simply never looks back. ●

Phillip Robinson writes an internationally syndicated newspaper column about technology. His e-mail address is PRRobinson@aol.com.

Kiyeko and the

A Magical Adventure in the

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KEEPING THE
FAITH

Technology meets theology on the Internet and on-line

One day earlier this year, Carl J. Hahn III, an employee at an aerospace company in Los Angeles, logged onto CompuServe, where he saw the announcement of a live chat with Gerald May. Carl had just read May's book, *Addiction and Grace* (Harper & Row), which explores the religious aspects of compulsive behavior, and he was eager to ask the author some questions. "I missed the conference," Carl says, "so I went looking for him in the Religion Forum, just in case he was posting messages. There he was. He turned out to be very approachable, and at least as interesting 'live' as he is in his book."

Carl never imagined himself the type to become engrossed in religious discussions over a computer network, but he and May soon became electronic pen pals. During his visits to the forum, Carl met others who shared his blooming interest in spiritual matters. "There's very

services, putting a new twist on some age-old spiritual quests. By Jeremy Schlosberg

little room for religious discussion in the professional world I live in," he says. "I just don't know too many people who enjoy theology. Most people either hate discussing it, feel insecure about it, or believe they have to convince you to have the 'right' thoughts."

On-line communication is giving more and more people like Carl an opportunity to thoughtfully discuss spiritual matters with a diverse group of peers. At first, technology and theology might seem an unlikely pairing, but in many ways it's a natural union. The anonymity of cyberspace provides a comfortable setting for people who wish to explore often-complex feelings without fear of embarrassment. It allows those who are troubled by their

physical or spiritual separation from their traditional place of worship a way to keep in touch or open a dialogue. Cyberspace also gives the faithful a chance to interact with religious leaders one on one, and to find an array of religious information not easily accessible elsewhere. (For a sampling of religious information on the Internet, see page 232).

Religion tends to be defined broadly in cyberspace, encompassing philosophy, ethics, mysticism, the occult, even politics. You'll

In on-line discussions, one regular finds, 'I'm free to explore what I believe without barriers.'

find message boards and chat rooms devoted to a wide range of faiths and topics, from agnosticism to Zen. Depending on which forum you enter and when, you can find support or hostility; the nature of exchanges, especially on the Internet, is hard to anticipate. Participants in some discussion groups, such as *soc.religion.christian* and *soc.culture.jewish*, thoughtfully debate emotionally charged issues such as abortion and the Middle East peace process. Other groups aren't quite what they seem; *talk.religion.misc* may sound like a promising forum for a meaningful dialogue from a variety of religious perspectives, but when I visited, much of the discussion focused on conspiracy theories about governmental mind-control experiments through water fluoridation.
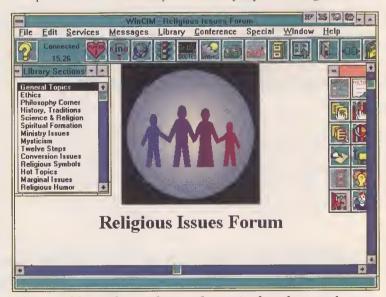
Soul searching
Religious feelings are extremely personal; finding a board or group appropriate to individual needs, interests and temperament may take time. When Maryanne Economos of Athens, Ga., discovered the Christianity section of CompuServe's Religion Forum (Go Religion) early this year, she thought she'd found what she was looking for. Dissatisfied with the Protestant church in which she was raised, Maryanne was searching for an informal atmosphere in which to discuss and come to terms with her feelings.

"After a while, I noticed that many people came into the forum either to argue that their own beliefs were the only path to God, or to stir up trouble by raising controversial issues," she says. "It got to be rather tedious."

Then one night she found CompuServe's Religious Issues Forum (Go Reliss), with sections on Ethics, Spiritual Formation, Religious Humor and more. There, Maryanne met people who were open-minded about spirituality and religion. Now she logs on every night. In three instances, she's followed up chats by arranging to meet face to face with people she's spoken with on-line.

One thing Maryanne appreciates most about the discussions is the diversity of the participants. "I'm free to explore, out loud and with others, what I believe, without denominational barriers," she says. "It's very liberating to me. I don't feel I have to hide anything I believe, or be ashamed as my beliefs change with time. I've never found that kind of freedom in organized religion before."

At first, the anonymity of cyberspace was a revelation for Maryanne, who had often felt too self-conscious to discuss her thoughts about God and spirituality. But with a nickname to shield her identity, she found no need to worry what the people reading her mes-

Religious Issues Forum

The tone of CompuServe religious chat varies from forum to forum.

sages would think of her; it freed her to express herself honestly and openly. Maryanne says that since religious discussion has entered her daily routine, "I'm much more in tune with God working in my life."

In addition, the Internet and the commercial on-line services let members of religious

congregations remain in touch no matter where they roam. When Dedra Goldhoff left her home in Cincinnati in September 1992 to attend Bowling Green State University in Ohio, she also left behind her place of wor-

Various houses of worship are setting up home pages on the Web.

ship. After two years of feeling as if she were "on hiatus" from Judaism, Dedra received an electronic bulletin via the Internet called RockLine—for Rockdale Temple On-line— from Rabbi Dan Rabishaw, the assistant rabbi at the temple she attended at home.

RockLine offered a friendly hello to students from the congregation who had gone away to college, and extended an invitation to ask questions about any and all aspects of Judaism. Word of the service spread locally, and some neighborhood residents asked to receive the electronic bulletins, too. Last De-

For one student, a rabbi's e-mail from home is 'my only connection to religion right now.'

cember, Rabbi Rabishaw renamed the service the Rockdale Online Digest and offered it to all comers. "It's my hope," he wrote, "that we can create a forum for questions, Internet exploration, friendly give and take, and good old schmoozing."

The digest contains updates on temple activities, a summary of the week's Torah reading with commentary, and, to encourage electronic debate, topical questions such as "Is political conservatism compatible with Judaism?"

Rabbi Rabishaw now sends the digest to some 150 people, including "snowbirds" who flock to Florida for the winter, former temple

members who've moved to the West Coast, families in Israel, local members of his congregation, and, of course, the college students who inspired the project. Dedra enjoys the bulletins so much that she shows them to her non-Jewish friends at Bowling Green. "My only connection with my religion right now is through this digest and my rabbi," she says.

Increasingly, synagogues, churches and other religious organizations are launching home pages on the Internet's World Wide Web. Most provide information on basic spiritual tenets, or describe their approach to religious issues. Many also give schedules of upcoming religious services and special events, and some enable you to send e-mail to their religious leaders.

The Madison Avenue Presbyterian Church in New York established a Web page last June (*http://www.interport.net/~MAPC*). "One of the basic tasks of evangelism is to spread the word," says the Rev. Dr. Fred Anderson, senior pastor of the church. "We post our Sunday sermons for members of the congregation who wish to use them for their own devotional purposes, as well as for those who travel and aren't able to attend services."

For people who aren't associated with a particular religious organization or place of worship, cyberspace makes it easier to consult with a spiritual adviser. Leaders of churches, synagogues and other religious organizations are going on-line to offer an ear to anyone who asks for it. Rev. Bill Tenny-Brittian, senior pastor of the Christian Church (Disciples of Christ) in Loganville, Ga., joined America Online in June hoping to find inspiration for his question-and-answer column in a local newspaper, *The Walton Tribune*. He entered the Religion & Ethics Forum (Keyword: religion), went into the Christianity section, then into the Christian Theology message board. He started a folder there for people to post suggestions, and they've been pouring in steadily ever since.

The Rev. Bill T, as he's known on AOL, soon began dropping in on the other religion message boards, where he meets many people with problems or questions they either can't or won't discuss with their local clergy. "I go on as a mentor," he says, explaining he's particularly keen to reach out to those who say they're not affiliated with a church. "The online world is providing people an opportunity to open up and address their spiritual needs without setting foot in a church," he says.

Father Paul Keenan, assistant director of

Don't let your kid be that dumb.

The 15th century was a time of impassioned exploration. Exploration that led to a wealth of new discoveries, and often riches. But a thirst for fame and fortune was only part of what drove the great explorers of this time. It was their intense need to challenge the unknown that set these men apart. And it was the unknown that led some of them to their graves.

Now you can sail alongside three of the world's greatest explorers: Columbus, Magellan and Cortes, as they make their way into the annals of history. You'll be amazed as these remarkable men come alive before your very eyes and invite you to share in their adventures.

Try your hand at piloting Columbus' ship using the same tools he used. Then land on the beach with Columbus as he encounters "Indians" in the new world for the very first time. Travel on Magellan's final voyage as you become one of only eighteen survivors on this hellish expedition. Assist Cortes in his miraculous escape from Montezuma's palace. Plus you'll find detailed maps, hours of fully-narrated animation, and realistic 3-D environments from the ships of their era, all awaiting your discovery.

Your journey as a world explorer doesn't end there however, included in Explorers' multimedia database are 60 other explorers who set sail between 1450 and 1600.

Each entry includes a complete biography, historical portrait and an interactive map which traces their historical route. Explorers of the New World is more than just a history lesson, it invites you to virtually discover the New World for yourself – along with the help of some old pros. Call 1-800-472-8777, and set sail for a whole new world of learning.

SoftKey

the communications office in the Archdiocese of New York, believes the accessibility and anonymity of on-line interaction help break down late-20th-century inhibitions about religious dialogue. "I think a lot of people don't know how to begin a conversation on spirituality, much less talk to a priest," he says.

Father Keenan runs a Prodigy chat room called As You Think (Jump: religion) on Tuesdays at noon and 9 p.m., in which he encourages people to think about their lives in a spiritual way. His chats are loosely organized around a suggested topic or news event, such as Pope John Paul II's visit to the United States this fall. During one recent discussion, he asked how people felt about their jobs; one individual expressed deep frustration over a prolonged period of unemployment. Father Keenan says he tried to help this man see his situation in the context of his whole life and his continuing spiritual journey.

The nature of live on-line conversation is spontaneous and unpredictable. "A lot of what we talk about depends on who shows up," Father Keenan says. Not long after April's explosion at the Federal Building in

Seek and ye shall find: 11 Web sites

If you're seeking spiritual enrichment or want to deepen your insight into the traditions of your faith, you'll find a rich source of material on the Internet's World Wide Web. Here are some sites to start you on your quest.

A-Z of Jewish and Israel Related Resources
http://www.ort.org:80/anjy/a-z/
From archaeology in Israel to Zionism, this site provides a comprehensive source of easy-to-read Judaical information.

CyberMuslim Information Collective
http://www.uoknor.edu/cybermuslim/
The Collective describes itself as an interactive guide to Islamic resources on the Internet, including audio and text excerpts from the Koran.

CyberZen
http://www.iudy.net/~bdmoore/cyberzen.html
Focusing on Zen Buddhism and Taoism, this site offers essays and translations of religious texts.

Distinctive Churches Home Pages
http://www.best.com/~nodakid/church.html
True to its name, this service links you to the home pages of hundreds of churches encompassing various Christian denominations in the United States, Canada and several other countries.

Global Hindu Electronic Network: The Hindu Universe
http://rbhatnagar.csm.uc.edu:8080/hindu_universe.html
Here you'll find a vast repository of

Hindu teachings and culture. The site includes complete scriptural texts, the latest religious news from India, and links to sites with pictures and descriptions of Hindu temples.

Library of God
http://convex.nky.edu:80/~rtcrit00/atemple.html
Visit this site to review papers on scholarly topics related to religion, ranging from the history of the Southern Baptist Church to a treatise entitled "Calvin and the Astronomical Revolution."

Mysticism in World Religions
http://www.bga.com/~vlp/dwp/mystic/index.html
Look here for explorations of a variety of mystical themes, such as grace and desire, through quotations taken from Christian, Buddhist and Hindu texts.

Origin: The Meeting Place of Religions
http://www.rain.org/~origin/origin2.html
This ambitious project aims to combine "science, humanistic philosophy and the spiritual insights of every culture in a multi-faceted dialogue." The home page is short on graphics, but offers many links to religious projects and reference materials.

Shamash Home Page
http://shamash.uyseruet.org/
Oriented as much toward religious leaders as laypeople, this site provides links to every notable Jewish resource on the Internet, including Chabad-Lubavitch in Cyberspace (itself a rich repository of information) and B'nai B'rith Interactive.
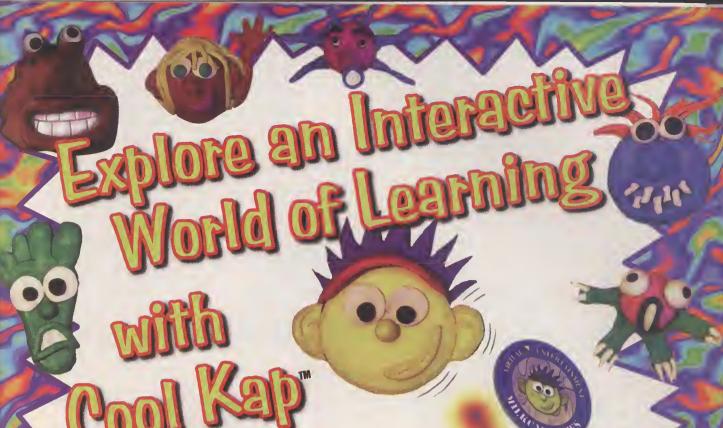
TorahFax
http://www.netaxis.qc.ca/torahfax/
Written and published by Rabbi Zalmen Marozov of Montreal, this site offers a daily explanation of Jewish teachings or a portion of the Torah. You can request a complimentary e-mail subscription by sending a note to *Torahfax@netaxis.qc.ca.*

Yahoo Religion Subdirectory
http://www.yahoo.com/society_and_culture/religion/
This directory, with more than 1,400 listings, lets you search for sites by keyword, and will link you to sites covering Asatru, Zoroastrianism and everything in between. —*J.S.*

Oklahoma City, a Red Cross volunteer who had been helping people at the scene arrived in the room. "He shared with us in great depth the complexity of his feelings as he tried to help the families whose loved ones had been lost," says Father Keenan.

Important religious figures have turned up on the on-line services as well. John Cardinal O'Connor, Archbishop of New York, participated in a live chat on Prodigy last December. This past September, AOL hosted

on the sixth night of the eight-day Passover festival, rather than on the traditional first and second nights.

"Computer interaction can be isolating," says Rev. Paul Soukup, a Jesuit priest who teaches in the communications department at the University of Santa Clara in California. "I think many of the religious aspects of our lives require some face-to-face connection. It's all too easy on-line to create your own world and then hide behind it."

Indeed, Rabbi Rabishaw, publisher of the Rockdale Online Digest, was initially taken aback when he encountered members of his congregation "who preferred to communicate with me via cyberspace rather than come into my office to talk." But

A priest worries that 'computer interaction can be isolating.... It's easy to create your world and hide.'

a conference with the Dalai Lama, the spiritual head of Lamaism, a sect of Buddhism found in Tibet and Mongolia; the following month, AOL offered live coverage of the Pope's mass in Baltimore.

Prodigy has even experimented with on-line religious ceremonies. Last spring, it hosted an interfaith Easter service, followed three days later by a Passover seder. Father Keenan and Presbyterian minister Byron Shafer presided over the Easter service, in which participants simply followed along with the invocation, call to prayer, Bible readings and homily as they scrolled down the screen.

The seder, on the other hand, more closely resembled an on-line conference. Sections of the Haggadah, the text read at the ritual dinner, were posted on-line. But more than the traditional Four Questions were asked. "It was a chance for people to talk with some of the leaders in Reform Judaism," says Dru Greenwood, director of outreach for the Union of American Hebrew Congregations (UAHC), which sponsored the event. It was like many family gatherings—"a little chaotic, but wonderful," she says.

Not surprisingly, few religious leaders believe virtual ceremonies will ever replace real ones, but some worry about the implications. Dru acknowledges that some rabbis were troubled by the on-line seder because they thought it would undermine the notion of gathering that's central to the traditional seder. To make sure people didn't use it as a substitute for a real seder, it was scheduled

he quickly realized that the anonymity of online communication makes it easier for people who are feeling insecure about their faith to broach the subject at all.

"What we manage to do is bring people into the temple who would never have been involved," he says. "Even though they're coming in electronically, they're still involved in the religious process."

On AOL, people post questions they won't ask local clergy.

While some leaders say they're simply waiting to see how the new medium will evolve, one thing is clear: Religious topics are already flourishing on the on-line services and the Internet, and people are taking the opportunity to explore. In cyberspace, if the spirit is willing, little else matters. ●

Jeremy Schlosberg is a HomePC *contributing editor. You can send him comments on this story at* Jeremy513@aol.com.

Just Sew

S T O R I E S

BY ANITA RABINOFF-GOLDMAN

Most clothes shoppers eventually accept a simple fact: Outside the pages of *Vogue*, no one's a perfect size *anything*. That's one of the reasons I took up sewing in high school. Rather than comb the racks in frustration, I made my own clothes until my college graduation.

But once I began working, I no longer had the time to painstakingly fit commercial patterns to my figure. And when I later tried to make clothes for my two daughters, even those patterns often were just a little off.

So the seamstress in me perked up when I read about pattern-making software for home PCs: Just plug in your measurements and out pops a pattern that's right every time. Even better, you can modify that perfect pattern easily to create hundreds of styles.

It seemed too good to be true. Inspired by the approaching holidays and the new software, I decided to try to create festive outfits for my daughter Lily, 14, and myself. Lily had her heart set

Seams like old times: With the help of pattern-making software, onetime clothesmaker Anita returns to the fold.

on a red silk dress, and I couldn't resist trying to make a funky blouse similar to the one I'd spotted in the window of a chic local boutique.

Dress Shop looked like a promising program for Lily's dress. It's organized into five sections: dress, blouse, skirt, pants and outerwear (jackets). Each category contains a number of styles (such as an A-line, pleated and wrap skirt) and features (collars, cuffs, waistlines and hem styles), all of which you can see on screen. The patterns are predesigned, but by no means confining;

both liked. I quickly discovered it was a snap to use this type of software; it was more of a challenge for Lily to stay still as I took her measurements—all 40 of them—following the manual's instructions. I plugged the numbers into my 486/33 PC, printed the pattern and used it to make a sample dress in muslin. Lily couldn't wait to try it on, but after a glance in the mirror she wore a disappointed look on her face—the dress seemed askew, and the bodice was too loose in some areas and too tight in others.

Lily tried on the *sample dress* I made on my first try, but after a glance in the mirror, she wore a disappointed look—the garment was *too tight* in spots, too loose in others.

for instance, there are about 325 ways to design a dress and 36 possible combinations for a blazer.

Lily and I found a basic sheath pattern we

I vowed to try again. This time, I intensified my effort to get the measurements right by watching Dress Shop's companion video and placing several calls to the software

Even with a computer-generated pattern, you'll still need some sewing experience to assemble a well-fitted garment.

maker's friendly technical-support staff. But no matter how I measured, I couldn't get the sloper—the initial pattern that conforms exactly to your measurements—to fit Lily just right. Finally, I lost patience and gave up.

If you have more experience with measurements than I do, Dress Shop will lead you step by step through drafting and printing your pattern, and then assembling a garment from it. The software lets you accept or adjust the recommended wearing ease—the amount of material added to a sloper to produce a final pattern, ensuring the garment drapes correctly and won't rip at the seams when you walk in it—by typing in the amount you need before the final pattern is drafted. While the

Undaunted by the *disappointing* dress, we pressed on with plans for a *red silk blouse*.

program won't calculate the amount of material you need to make the garment, the manual will teach you how to accurately measure yardage by hand. The manual also provides detailed instructions on how to alter a printed pattern; for example, you can add a yoke to put a Western accent on a basic blouse.

After the dress disappointment, Lily obligingly set her sights on a long-sleeved blouse—happy at least that we'd take another crack at working the red silk into her wardrobe—with a short, fitted black velvet skirt. This time, I

Soft wear: Anita reviews dress styles.

tried Fittingly Sew, a program that demands fewer measurements; if you're lucky enough to be a standard size (alas, Lily and I are not), you can skip the measurement fuss altogether.

I selected predesigned basic patterns for the skirt and blouse, and used the measurements I'd taken for Lily's dress. Fittingly Sew's excellent cross-referenced manual includes step-by-

Software helped eliminate hemming and hawing about how Lily's outfit would look.

step instructions for manipulating pieces of a pattern; for instance, you can reshape the collar or sleeves, create a facing or yoke, add tucks and remove darts. To spice up the look, I modified the blouse with a gathered sleeve. It turned out to be so easy to adjust the pattern that I added a V-neck for good measure.

I printed the patterns—it took 20 sheets of paper for the blouse and six for the skirt—and taped them all together to form the full-size patterns. They worked beautifully, and Lily was thrilled with her new outfit. (Still miffed by my failure in Dress Shop, I tried drafting the blouse in that program, too, but the pattern just didn't fit as well.)

Fittingly Sew is the only program I saw that lets you design garments from scratch; I decided to use it to make a pattern to duplicate the flowing, multifabric blouse that caught my eye at the boutique. I selected the basic blouse pattern and chose the maximum wearing ease. Using the mouse, my own design sense and drawing skill, I adjusted lines and curves until the image on screen looked almost exactly like the top I had admired. Next, it was my turn to stand patiently while my husband, Ken, measured me. The PC churned out a perfect pattern. (If you lack

sewing experience, you'll face some hurdles; the manual ignores calculating yardage and leaves out tips for assembling a garment.)

To make slacks to go with the blouse, I turned to Personal Patterns Classics Women and Children, which includes basic patterns for 20 blouses, three skirts and four pants styles. There are a few options for collars, but facings and waistbands have to be created on paper. Unlike Dress Shop and Fittingly Sew, Personal Patterns excludes seam lines from its patterns; these, too, have to be added by hand after the pattern prints out.

The program manual wasn't much help; it provides simple measuring information but leaves other basics up to you—how to con-

Now, Lily and I can't wait to wear our *holiday best;* meanwhile, I'm designing for spring.

struct the garment, make buttonholes or sew pockets, for example. It also fails to note that the program's fitted bodice styles omit the wearing ease, which you must add to your own measurements when drafting a garment.

I spotted a pattern for pleated pants that I thought would go well with the blouse. I plugged in my measurements to create the pattern (I could have skipped this step if I were a standard size). The pattern produced a

pair of nicely styled pants that fit perfectly.

Classics Jackets, another program in the Personal Patterns series, gives you five basic styles with up to six variations on each, as well as patterns for pants and skirts. Unlike Classics Women and Children, this edition's man-

Just as you sew shall you reap: Anita made herself an outfit just like one in an expensive shop.

ual contains helpful measuring information, illustrations, yardage estimates and a list of notions to complete the garment. The program also includes detailed instructions for sewing the jacket, a handy feature for a hefty job.

Now, Lily and I can't wait to wear our new holiday best. I've promised Ken and our 10-year-old daughter, Davia, that I'll make outfits for them as soon as I find pattern-making software in their sizes. For now, Personal Patterns Classics Women and Children is the only program I know of with patterns for kids—basic T-shirts, tops, skirts and pants, for toddlers through girls up to 5 feet tall and boys up to 5 feet 6 inches—but the plain styles don't seem worth the time it takes to make them.

It looks like our PC and sewing machine will be in demand this winter. Lily's dropping hints about a new jeans jacket, so I've encouraged her to see if sewing's in her genes. Meanwhile, I've been designing my own spring wardrobe—and I hope it won't be long before I have it all sewn up. ●

Anita Rabinoff-Goldman, an award-winning quilt artist, lives in Feura Bush, N.Y. She also sews custom-made prayer shawls. You can send her e-mail at argart@aol.com.

S H O P P E R ' S   G U I D E

Here's how to get more information on the pattern-making software mentioned in this article.

Dress Shop 2.0
LivingSoft, (800) 626-1262, (916) 253-2700
$129.95 (DOS)
Demo: $10 on disk, or free download from Compu-Serve's Fiber Crafts Forum (look for *ds2dem.exe*). Measuring video: $19.95, or $12.95 with purchase of Dress Shop 2.0. *Circle #401*

Fittingly Sew
Bartley Software, (800) 661-5209, (613) 829-6488
$169 (Windows, Macintosh)
Demo: free on disk. *Circle #402*

Personal Patterns
Water Fountain Software, (212) 929-6204
Classics Jackets, $199 (DOS, Windows); Classics Women, $129 (Windows); Classics Women and Children $179 (DOS). Demos: $10 each on disk. *Circle #403*

Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

Confessions

OF A GAME ADDICT:

Day 1: I was driving down the freeway eating a chili dog, shifting into fifth, balancing a copy of WIRED® on my lap, when the cellular rang. It was Bob from Sierra. He wanted to know if I could write reviews for a bunch of new CD games they had coming out.

I had 40 days, 15 games, and a closet full of sunflower seeds, instant coffee and Pop Tarts®.

HOW COULD I SAY NO?

GABRIEL KNIGHT®:
THE BEAST
WITHIN™

The top two computer gaming magazines both named the first *Gabriel Knight* mystery the best adventure game of the year in 1994. Creator Jane Jensen might want to start dusting off her awards shelf again, as *The Beast Within* mixes a strange, new brew of mutilation murders, a centuries-old curse, and criminal misdeeds on multiple CDs.

Gabriel Knight, a detective of the supernatural, is summoned to Munich to investigate a series of murders blamed on werewolves. The edge-of-your-seat tale unfolds to implicate the mad King Ludwig II, a lost Wagner opera, and Gabriel's own dark past.

Shrewd thinking and paying attention to details are rewarded as players unravel clues while taking on the role of Gabriel and his partner, Grace Nakimura. Shot on location in Germany and the U.S. with more than 40 surprisingly talented actors, *The Beast Within* is possibly the most visually stunning, realistic adventure game to come out on CD this year. Even the photo on the box is enough to induce a minor heart palpitation.

INTERACTIVE CINEMA *The rich, realistic movie-like look of* The Beast Within *came from shooting more than 1,000 backgrounds here and in Germany.*

WIN'95 **WIN** **DOS** **MAC**

MATURE M AGES 17+

PHANTA
HORROR

Unless you've spent the last couple of years spelunking in Zanzibar, you've already heard of *Phantasmagoria.* Now it's finally here with all the elements of a big hit: a master story teller in the person of Kings Quest® creator Roberta Williams, feature-film quality footage, and a story so rich and elaborate it took a record-setting seven CDs to contain it all.

The tale of Don and Adrienne's bizarre discoveries about their newly-acquired mansion is told in realistic live video. No, you don't watch a movie and then click on a plot option. You run this show.

But the thrill of *Phantasmagoria* isn't simply the technology, it's also the story. As Adrienne explores her new home, its dusty secrets begin to reveal themselves. The original owner, an illusionist, died in the house after the suspicious disappearances of his

INTERACTIVE NIGHTMARE *The most film footage ever shot for a CD game lends* Phantasmagoria *the sinister qualities of a great horror feature film.*

Day 24: My family keeps bugging I told them, "can't Timmy w

TORIN'S PASSAGE™

Leave it to Al Lowe—creator of some of the most entertaining and enduring computer games—to unleash *Torin's Passage* on the world.

In coming up with this remarkable new game, he has delivered to our CD drives an adventure game with as much intrigue and brain-twisting challenge as any hard-core gamer has ever tackled *AND* a funny, musically-rich, visual treat that takes gaming to a new level.

Torin's Passage is the story of a young man's encounters in the nested worlds *beneath* the surface of the planet, Strata. These bizarre lands, replete with flowing hot lava, unworldly creatures, and a host of other cunning obstacles, must be traversed if Torin is to reach his goal.

Making matters worse (for Torin, more exciting for you) is a formidable line-up of brain-teasing puzzles at the end of each chapter—all of them, double black diamond challenges.

There is one word to describe the artistry in *Torin's:* "whoa!" Multi-plane scrolling, spectacular backgrounds, and hand-drawn cel animation add a depth and realism you've never seen in a game before. The sheer talent and imagination of the artists is, by itself, worth the price of admission.

But your eyes aren't the only things that get to dip into the candy box. *Torin's* also features an original digital music score composed by three-time Oscar™ winner, Michel Legrand.

There's a pop-up TelePrompTer™ that lets you replay dialogue to listen for crucial clues, plus a 3-D interface with online hints for the less-experienced players. There was, however, one hint missing: How do you avoid work, eating, chores and sleep so you can play *Torin's Passage* endlessly?

THE WONDER DOWN UNDER *The subterranean worlds of* Torin's Passage *provides the setting for a challenging quest with brain-teasing puzzles and humor.*

WIN'95 | WIN | DOS | MAC   K-A

fished for bass,
barbarians, won the playoffs,
ate six Cup Noodles.®

FRONT PAGE SPORTS®:
FOOTBALL PRO '96™

When *Football Pro '95* was hailed as "the best football game on the planet," you'd think Sierra would send in the third string and retire to the locker room for a tall, frosty one. But, no. They put the pads back on, threw out the old playbook, and came back with *Football Pro '96*.

It keeps all the things that earned its forefathers the Best Sports Simulation award three years running: Slavish attention to real NFL player and team stats, a play book with over 10,000 combinations of X's and O's, and league play over CompuServe.

Ah, but that's the old stuff. For 1996, you can suit up as a player for an arcade game or appoint yourself coach for the football sim. What's more, 3D animations were created using films of actual players shot from dozens of angles simultaneously, so tailbacks juke, wide receivers sprint, and linemen grunt just like their real-life counterparts. The awesome realism of this new version is sure to earn some accolades. "Best football game in the solar system?" Could be.

THIS IS NOT TV *The "motion capture" based 3D animation will have you think you've tuned in to the NFL game of the week. But this is better: No commercials.*

WIN'95 DOS

COMMAND:
ACES OF THE DEEP®

Now hear this. All personnel who want to see how the Simulation Game of the Year has been improved, report to your software dealer. *COMMAND: Aces of the Deep,* with its incredible realism and historical accuracy, has taken a giant leap forward with the addition of phenomenal texture-mapped graphics and voice activation.

With Windows® 95 and IBM VoiceType®, you bark commands at your U-boat crew and watch them respond to your orders to dive, surface, fire torpedoes, and more. While you don't need the voice command option to play the game, it adds yet another dimension to the realism.

Your strategic skills get a sweat-producing workout in the cat-and-mouse pursuit sequences, while a new two-mode deck gun lets you play a more arcade-style game. Here, you get to do to other ships what *COMMAND* has done to other simulation games: Blow them out of the water.

DIVE! DIVE! *Shout out the orders, and your crew reacts on the double in the first voice-activated CD-ROM simulation game ever.* IBM VoiceType is a registered trademark of IBM Corporation.

WIN'95 NATIVE

Day 27: It took 3 but I finally reached Level Not every

3-D ULTRA PINBALL™

The pinball wizards at Sierra have just come up with a better idea on how to stick five vertical feet of pinball machine onto seven inches of computer screen. While most other pinball games show you the table as if it were shot pointing straight up, Sierra's *3-D Ultra Pinball* slants the table so you can see the whole thing easily without scrolling. This bit of cleverness was then totally exploited with the most amazing spacescape graphics to appear this side of Alpha Centauri.

Another innovation: *3-D Ultra Pinball* uses advanced physics formulas to give you an uncannily accurate feel of a real table. Thanks to genius programming from some people who weren't sleeping during Physics class, flipper responsiveness, table bumping, ball rolling and ricochets look and react just like an authentic tavern machine. It even tilts like classic pinball. Damn!

The game's three tables can be interconnected so you can keep going until the sun comes up. And action on all versions is super fast; an amazing feat especially for a Windows® game. If there's one downside to this addictive game, it may be that the garbage isn't going to get taken out for a while, and the dog may have to start walking himself.

FAST AND FURIOUS *The full dimensional graphics of 3-D Ultra Pinball haven't slowed things down. Action is fast, frenzied, and richly animated.*

WIN'95 | WIN | MAC

THE

Now that the Windows® 95 frenzy is going full tilt, you may wonder, "is there a game specifically designed for this amazingly cool new operating system that takes full advantage of its multi-threading capabilities?" Or perhaps you'd like to know, "is there a game so incredibly wicked that it will actually increase my supply of testosterone?"

The answer to both questions: Yes. And you're looking at it.
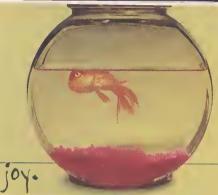
Thexder flies, runs, jumps, morphs into a tank or plane, and blasts his way through five worlds, each with ten different levels of increasing hair-pulling difficulty.

Your job in all this is to help *Thexder* work his way through mind-numbing mazes while steering clear of energy fields, sheer drop offs, and other assorted game-enders. Then, in addition to robots, aliens, cyborgs and other

Day 39: Help! My reviews are due tomorrow and I'm stuck in Mary, Mary Quite Contrary's garden.
Where's my 4-year old?

THE LOST MIND OF
DR. BRAIN™

You have to love something that makes your kids smarter, keeps them happily occupied for hours, and *isn't* TV. In this case, that something is *The Lost Mind of Dr. Brain*.

This third installment in the immensely popular *Dr. Brain* series gives kids 10 different wildly entertaining puzzles to solve–each challenging the 10 learning centers in real live kid brains. Some involve mazes, others memory games, and there's plenty of fun with words and music. Since you can set the degree of difficulty, both ten-year olds and teens can have their brains put to the test.

But here's the real truth. These puzzles are also a blast for those of us who, ahem, haven't doodled on a Pee Chee for many moons. (My favorite: sending the right colored balls down the railroad track maze to the station.)

So don't get the idea this is some stuffy, bookish "learning aid." The puzzles are pure fun, surprisingly funny, and always a challenge. If you've got kids, buying *The Lost Mind of Dr. Brain* is clearly a no brainer.

BRAIN CENTRAL *There's an object to this game: Help restore Dr. Brain's brain which he accidentally transferred to his rodent assistant, Rathbone.*

WIN'95 WIN MAC

M I X E D – U P
MOTHER GOOSE®
D E L U X E

The list of the awards *Mixed-Up Mother Goose* has won from magazines, parents' groups and the software industry could fill up the rest of this page. And no wonder. Here is a game that has introduced more than 500,000 little ones to the computer, while helping build their problem-solving and learning skills.

Sounds like a textbook? It's not. In the new deluxe version of *Mixed-Up Mother Goose* kids search through Mother Goose Land to find missing objects from classic rhymes. A successful recovery is rewarded with a song–but not like you've ever heard before. Imagine "Little Jack Horner" done in reggae and you'll get the idea.

The game can be played in English or Spanish, and there's a free bonus audio CD of the 18 songs in the game so kids can sing along after you've commandeered the computer so you can play your games.

TAKE A GANDER *Mother Goose Land is laid out in beautiful, hand-painted graphics, with dozens of places for kids to explore.*

WIN'95 WIN MAC

SIERRA® BUY TWO SIERRA GAMES AND GET A THIRD FREE.

Day 41: Fried my computer. Entered Sierra Sweepstakes to win IBM® Aptiva "Ultimate Gamer."

We're giving away five IBM Aptiva "Ultimate Gamer" systems with Pentium® 133 Mhz processor, 16 MB RAM, 3.4 GB HF, Six Speed CD-ROM, 16-Bit Wavetable sound, 3-D graphics card, 2 stereo speakers with sub-woofer, and a 17" SVGA monitor (15.7" viewable image size). You want? Option A: Scour all 10 pages of the Sierra ad, answer the questions below, send the card back to us by February 14, 1996 and pray mightily to the game gods. Option B: Buy your own by calling IBM PC Direct at 1-800-IBM-2-YOU.

Which Sierra game comes with 7 CD-ROMs? _____

Which Sierra game takes place in an abandoned museum? _____

Which Sierra game visits subterranean worlds? _____

Which Sierra game features voice activation? _____

Name _____

Address _____

City _____ State _____ Zip _____

Day 48: Bought two Sierra games, got a third free*. Free game was actually not junk.

Hard to believe, but there are even more Sierra games than we could squeeze into this ad. So check them all out by going to the place where you like to buy games or call 1-800-757-7707 and order directly from Sierra. Then, when you buy any two games from the list below between November 1, 1995 and January 31, 1996, you can select one more from the other side of this card and we'll send it to you for free.

❏ Adi's Comprehensive Learning System
❏ Caesar II
❏ COMMAND: Aces of the Deep
❏ Front Page Sports: Football Pro '96
❏ Gabriel Knight: The Beast Within
❏ Hoyle® Classic Games
❏ Kings Quest VII, 2.0

❏ Last Dynasty
❏ Lode Runner On-Line
❏ Lost Mind of Dr. Brain
❏ Mixed-Up Mother Goose Deluxe
❏ Outpost 1.5
❏ Phantasmagoria
❏ Police Quest: SWAT
❏ Print Artist 3.0

❏ Shivers
❏ Space Quest 6
❏ Thexder
❏ 3-D Ultra Pinball
❏ The Incredible Machine 3.0
❏ Torin's Passage
❏ Trophy Bass

* Well, OK, free plus $5.95 for postage and handling.

consumer lab

Our PC jury feels most at home with IBM, Packard Bell

by sean fulton

TESTED THIS MONTH

Computers

★ Aptiva M50

★ Legend 814CD

• HP Pavilion P75

• Gateway P5-100

• Performa 5215CD

• Presario 7170

• Epson Action Tower 8200MM

• Midwest Micro Elite

• Quantex P5/90

★ Globalyst-363

• Advantage P100

Make no mistake about it: Consumers shopping for a computer have their work cut out for them. Computer veterans have all seen firsthand how fast the state of the art changes, and they know the risks. The perfectly respectable system you buy could look a bit raggedy when you hear friends raving about a hot new feature in their PCs, leaving you to spend more money for an upgrade—or simply do without. For inexperienced buyers, the pressure can be intense; there are mysterious terms to contend with, and many seemingly similar products on computer-store shelves.

So, is every consumer fated to suffer the slings and arrows of outrageous fortune at the computer store? Of course not—if you do your homework.

The best remedy for the angst is preparation. The more you know about the features and technology to look for in a new PC *before* you set foot in the stores, the greater the chance you'll emerge with a system that will look as good to you in a year as it does the day you get it home.

In this month's Consumer Lab, we examine some of the most important features to consider when you shop. And, to add some real-life experience to our general shopping ad-

Elleu, a local television reporter, got the inside story on PC setup.

vice, we offered a team of consumers the ultimate opportunity for risk-free comparison-shopping: We

For consumers worried about buying a system today that won't be able to run ever-faster software tomorrow, the companies that supplied the computers for our tests provided one important clue: Not one of these systems uses a processor slower than a 75-MHz Pentium or PowerPC chip. While *HomePC* recommends a 90-MHz Pentium as a sensible choice for a new PC as a hedge against the future, you'll see that many of our testers were fully satisfied with the everyday performance of some systems based on a 75-MHz chip.

However, *HomePC*'s technical-performance tests, developed in conjunction with our sister publication, *Windows Magazine*, generally showed a significant lag in speed between the 75-MHz machines and most PCs based on 90- or 100-MHz processors (see page 268). Not surprisingly, a 100-MHz machine—the Midwest Micro Elite—was the speediest of the group. Our tests also proved another point that will

chips, such as Packard Bell's Legend 814CD. Whatever the chip speed, other factors may keep the system from taking full advantage of its potential.

The clean sweep of Pentium machines among the manufacturers holds one more important lesson for consumers: If you're buying a PC for the long haul, there's no such thing as a good deal on a 486-based desktop PC. At the same time, unless you have a special need for speed, you probably don't have to spend the extra money for a 120- or 133-MHz Pentium chip yet. As for the new Pentium Pro (see the Gear + Gadgets report on page 434), it's earmarked this year for specialized office applications; the chip is not expected to be used in home PCs until late 1996 or early 1997.

Many PC makers tailor their PCs

Our tests of PC **speed** proved one important point: A PC with a 90-MHz chip actually can be **faster** than a PC with a 100-MHz chip.

asked them to give 11 new computers an in-depth workout, as if they had just bought them and brought them home. They compared the machines' performance and, given their hands-on experience, declared which PC they would buy and why.

For this Lab, we recruited a team of experienced testers (all had participated in previous Consumer Labs) to get an informed opinion on the new PCs' mix of features, performance and value. After spending time testing the machines in our on-site lab, they took each PC home for about a week, so that they and their families could put the hardware to the test under real-world conditions.

Looking over the field
We asked 11 top U.S. PC makers (according to 1994 sales figures from Dataquest, a Santa Clara, Calif., market research firm) to select their model with the best mix of price and features for our test. Be aware that each company sells a range of PCs under one "family name" (like IBM's Aptiva), which may vary in price and features from the models our testers used.

prisingly, a 100-MHz machine—the Midwest Micro Elite—was the speediest of the group. Our tests also proved another point that will

Apparel maker Kenneth liked how Packard Bell accessorized with software.

serve you well as you shop: You can't always gauge system performance by chip class alone—the 90-MHz Quantex P5/90 was faster than some PCs with 100-MHz

to specific customer groups, and that may affect the features you'll see in a particular computer. For example, a machine that Company A calls a general home multimedia computer may include wavetable synthesizers, rather than older FM synthesizers, to play rich, crisp CD-ROM game soundtracks. It's also

Making the grade: how 11 top computers stack up

	General multimedia				
	IBM Aptiva M50	**Packard Bell Legend 814CD**	**HP Pavilion P75**	**Gateway P5-100**	**Macintosh Performa 5215CD**
Design	B	A-	B+	B+	B
Documentation	B+	A	B	B+	B+
Ease of setup	A-	B+	A-	A	A
Monitor quality	B+	A-	B+	A-	A
Out-of-box experience	A-	B+	A	A	A-
Overall quality	B+	B+	B+	B	B
Overall value	B+	B	A-	B	B
Performance	B+	A	B+	B+	B-
Software selection	A-	A-	B+	B	B
Sound quality	B+	B	B+	A-	C+
Overall grade	**B+ (3.58)**	**B+ (3.58)**	**B+ (3.52)**	**B+ (3.41)**	**B (3.31)**
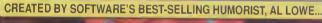
more likely to build in "3-D sound"—which provides "surround-sound" multimedia—and MPEG support; the latter lets you play video segments in MPEG-encoded CD-ROMs smoothly using the full screen. (See "PC Magic: It's All in the Cards" in our October issue for more on these components.)

In contrast, a machine in Company A's home-office line may offer more pre-installed business software, and might be designed in a tower (vertical) configuration that sports extra drive bays for add-in devices that are especially important to a commercial enterprise, such as an additional hard drive or a back-up unit. Of course, these are general guidelines—for instance, some PCs we saw encased in tower configurations are marketed as general multimedia systems.

We divided our testers into two groups: Eighteen of the 24 testers

After his test, John wished he'd hooked up with HP before buying his new PC.

(RAM). If you can afford the extra expense, 16 MB is a better bet.

Hard drive capacity has gone way up, too. One-gigabyte (GB)— or 1,000 MB—drives are becoming

its first home PCs only this fall, hit the ground running: The HP Pavilion P75 finished second.

Among the home-office PCs, the AT&T Globalyst-363's 3.56 (B+)

IBM's Aptiva and Packard Bell's Legend **tied** among multimedia **PCs;** *AT&T's Globalyst went out on top in the home-office category.*

examined the nine multimedia systems we received; the others sized up the two-home office PCs. As you'll see by their grades and comments, each group looked for dis-

Even computer specialist James Ostazewski leans on documentation.

tinct features—sound quality, bundled software and so on—that would target the needs of either a family or a home-office manager.

No matter whom it's for, a PC needs certain basics you should look for when you shop. Don't buy a new PC with less than 8 megabytes (MB) of random access memory

more common; most of the PCs in this review boasted at least 850-MB hard drives.

Most models we tested are sold with 14.4-Kbps fax/modems. But speed isn't all that's hot about modems this season; almost all the computers we tested have software that lets the PC act as a telephone voicemail system.

In addition to having our testers experiment with the telephony options and the included software, we made sure they gave each PC a rugged workout, from casing its internal layout to installing hardware. (For more details on a PC's internal configuration and what to look for when you shop, see "Inside Your New PC," page 280.)

And the winners are...
While all the PCs in this review proved to be good performers, with no model scoring lower than a B overall, our testers' scores in the general multimedia category put IBM's Aptiva M50 and Packard Bell's Legend 814CD in a tie at the top: They each scored a 3.58 (B+). Hewlett-Packard, which introduced

finished slightly ahead of the AST Advantage P100. (After testing, AT&T announced that it's bowing out of the PC business; you'll be able to buy a Globalyst PC until at least Dec. 22, and AT&T promises it will support any machines sold.)

If you think a PC reviewed here is right for you, remember what we said at the start: Computing features change fast. Take our PC pullout card (following page 292) to the store; this handy form gives you room to compare the specs of your favorite models, and keeps *HomePC*'s recommendations within easy reach. Ask a salesperson to update you on current features.

Armed with our testers' first-hand accounts of each PC, which begin on page 282, you'll have a clear idea of the questions to ask and features to research when you compare PCs—so you can concentrate on the rewards, not the risks.

Lab assistance by Anne Clifford, Abdul Farooqi, Patrick Gaynor, Barbara Hamill, Judith Hogan, Doug Kalinousky, Judith Levine, Mel Odemis and Sun Ying Tam.

Picking the right computer: what's inside 11 top models

	General multimedia				
Manufacturer	IBM	Packard Bell	Hewlett-Packard	Gateway	Apple Computer
Model name	IBM Aptiva M50	Packard Bell Legend 814CD	HP Pavilion P75	Gateway P5-100	Macintosh Performa 5215CD
Processor	Intel 100-MHz Pentium	Intel 100-MHz Pentium	Intel 75-MHz Pentium	Intel 100-MHz Pentium	PowerPC 75-MHz RISC
Memory	8 MB	8 MB	8 MB	8 MB	8 MB
Hard drive capacity	1 GB	1.2 GB	850 MB	730 MB	1 GB
Floppy drives	One 3.5-inch	One 3.5-inch	One 3.5-inch	One 3.5-inch	One 3.5-inch
No. of total drive bays	4	4	4	7	3
No. of free drive bays	1	1	1	4	0
CD-ROM drive	Quad-speed (4X)	Quad-speed	Quad-speed	Quad-speed	Quad-speed
Graphics adapter	Super VGA, 1,280-by-1,024-pixel resolution	SVGA 1,024-by-768-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	832-by-624-pixel resolution
MPEG support	Yes, software	Yes, software	No	No	Yes, hardware
Monitor	15-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch SVGA, 1,024-by-768-pixel resolution	14-inch SVGA, 1,024-by-768-pixel resolution	15-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch, 832-by-624-pixel resolution
Fax/data modem	28.8-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps
Sound capabilities	16-bit, wavetable synthesis, 3-D sound	16-bit, FM synthesis, 3-D sound	16-bit, FM synthesis	16-bit, wavetable synthesis	16-bit, FM synthesis
Telephony	Yes	Yes	Yes	No	Yes
Speakers	30 watts per channel	10 watts per channel (with adapter)	5 watts per channel	4.5 watts per channel	Information not available
No. of ISA/PCI expansion slots	3 ISA/2 PCI	3 ISA/2 PCI	3 ISA/2 PCI	3 ISA/4 PCI	1 PDS (Processor Direct Slot)
No. of free ISA/PCI expansion slots	2 ISA/2 PCI	2 ISA/2 PCI	2 ISA/2 PCI	1 ISA/3 PCI	1 PDS
No. of free SIMM sockets	2	2	2	2	1
No. of software programs included	12	34	26	18	26
Extras	Microphone	Microphone, remote control	Microphone	No	Microphone, TV hookup
Warranty	3 years limited	1 year on-site	1 year on-site	1 year on-site, 3 years limited	1 year on-site, 1 year limited
Toll-free tech support	24 hours, 7 days a week	24 hours, 7 days a week	24 hours, 7 days a week	24 hours, 7 days a week	24 hours, 7 days a week
Customer service number	(800) 426-3333 (914) 765-1900	(800) 733-5858 (818) 865-1555	(800) 752-0900 (408) 246-4300	(800) 846-2000 (605) 232-2000	(800) 776-2333 (408) 996-1010
Price	$2,788	$2,699 (estimated street price)	$2,200	$2,524	$2,300 (estimated street price)
Reader service	Circle #539	Circle #540	Circle #541	Circle #542	Circle #543

Compaq	Epson	Midwest Micro	Quantex	AT&T	AST
Compaq Presario 7170	Epson Action Tower 8200MM	Midwest Micro Elite	Quantex P5/90	AT&T Globalyst-363	AST Advantage P100
Intel 90-MHz Pentium	Intel 75-MHz Pentium	Intel 100-MHz Pentium	Intel 90-MHz Pentium	Intel 75-MHz Pentium	Intel 100-MHz Pentium
8 MB	8 MB	8 MB	16 MB	8 MB	16 MB
840 MB	850 MB	1 GB	850 MB	1 GB	1 GB
One 3.5-inch	One 3.5-inch	One 3.5-inch	One 3.5-inch	One 3.5-inch	One 3.5-inch
4	7	8	11	6	7
1	4	5	8	3	4
Quad-speed	Quad-speed	Quad-speed	Quad-speed	Quad-speed	Quad-speed
SVGA, 1,024-by-768-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution
Yes, software	No	No	No	No	Yes, software
14-inch SVGA, 1,024-by-768-pixel resolution	17-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch SVGA, 1,024-by-768-pixel resolution	15-inch SVGA, 1,280-by-1,024-pixel resolution
14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps
16-bit, FM synthesis	16-bit, FM synthesis	16-bit, wavetable synthesis	16-bit, FM synthesis	16-bit, wavetable synthesis	16-bit, FM synthesis
Yes	Yes	Yes	Yes	Yes	Yes
4 watts per channel	7 watts per channel	4.5 watts per channel	4.5 watts per channel	Information not available	7 watts per channel
3 ISA/2 PCI	3 ISA/2 PCI	4 ISA/3 PCI	4 ISA/3 PCI	5 ISA/3 PCI	5 ISA/2 PCI
2 ISA/2 PCI	2 ISA/2 PCI	2 ISA/2 PCI	2 ISA/2 PCI	4 ISA/3 PCI	2 ISA/2 PCI
2	2	2	2	4	2
31	16	6	14	22	10
Microphone	Microphone	None	None	Microphone	Microphone
3 years limited	1 year on-site	3 years limited	1 year on-site, 1 year limited	1 year on-site	1 year on-site, 2 years limited
24 hours, 7 days a week	M-F, 6 to 6 (EST)	M-F, 9 to 7; Sat, 10 to 4 (EST)	M-Th, 9 to 8; F, 9 to 6; Sat, 10 to 4 (EST)	24 hours, 7 days a week	24 hours, 7 days a week
(800) 345-1518 (713) 374-0484	(800) 289-3776 (310) 782-0770	(800) 445-2015 (513) 368-2309	(800) 836-0566 (908) 563-4166	(800) 225-5627 (513) 445-5000	(800) 876-4278 (714) 727-4141
$2,000	$2,099	$2,349	$2,099	$2,365	$2,699
Circle #544	Circle #545	Circle #546	Circle #547	Circle #548	Circle #549

Time trials: which PC is fastest?

How fast do the systems in our Consumer Lab handle their computing chores? To find out, we conducted a series of speed tests to assess relative performance. The tests were developed by lab technicians at *Home-PC* and our sister publication, *Windows Magazine*.

The speed tests consisted of macros (programmed series of tasks) run in various programs. The Doom II test highlighted each system's ability to process graphics, and its sound quality and hard disk activity.
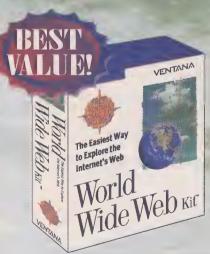
The Compton's Interactive Encyclopedia test showcased how well the PC manages various CD-ROM tasks, including data searches, and audio and video playback. The Excel macro ran calculations and statistical math problems, a task that particularly taxes system memory and the processor.

With the exception of the IBM Aptiva M50 and AT&T Globalyst-363, the PC speed tests were conducted on machines running a copy of Windows 95

Test times recorded in seconds; a lower number indicates better performance. Numbers in bold indicate the best

Processor speed	75-MHz			90-MHz	
Manufacturer	AT&T	Epson	HP	Compaq	Quantex
Model name	Globalyst-363	Action Tower 8200MM	Pavilion P75	Presario 7170	P5/90
	8 MB of RAM			*8 MB of RAM*	
Doom II	439	386	**359**	367	283
Compton's	213	**197**	205	191	136
Excel	106	**104**	108	124	71
	16 MB of RAM			*16 MB of RAM*	
Doom II	473	378	**345**	344	270
Compton's	**106**	132	122	111	92
Excel	93	**90**	96	103	65

supplied by the PC's manufacturer: IBM and AT&T did not supply such versions in time, so we installed a store-bought copy of Windows 95. Running a version of Windows 95 supplied by IBM or AT&T could have altered the results, because each would have included drivers tailored to the systems. We did not conduct speed tests on the Macintosh Performa 5215CD reviewed in the Consumer Lab this month.

The machines use different processors, which accounts in part for the differences you'll see in the performance scores. In general, PCs incorporating the same processor fell in roughly the same speed range—but not always. For instance, even though the Quantex P5/90 and Compaq Presario 7170 both use a 90-MHz Pentium, the Quantex performed faster. Overall, the results of these tests show the 100-MHz Midwest Micro Elite to be the brightest all-around performer in the test group.

score for that test in each processor group.

100-MHz

AST AST Advantage P100	Gateway P5-100	IBM Aptiva M50	Midwest Micro Elite	Packard Bell Legend 814CD
8 MB of RAM				
313	283	324	**248**	330
157	165	238	163	171
147	71	104	**65**	107
16 MB of RAM				
303	265	304	**238**	300
106	129	126	110	123
131	63	91	**59**	89

Meet December's testers

(Top row, left to right)
Barbara Dowd, 47, works in financial services. She has almost 20 years of experience with computers; she uses a PC at home and at work, and relished the opportunity to give the computers in the Consumer Lab a workout before she plunks down money for a new system.

Anthony Carvalho, 19, is a student. He uses a Macintosh at school and works on an old 286-based PC at home. Anthony, who considers his computing skills to be average, said he'd spend up to $2,000 for a new PC.

Steve Fong, 33, is a computer-store salesman; he's been using both PCs and Macs at work for eight years.

Trent Schneider, 30, is a research administrator for a university. He uses PCs at work and at home, and rates his computer experience as above-average.

(Middle row, left to right)
Lisa A. Freeman, 24, is an office manager for a film production company. She's used a PC at her job for about five years, but she doesn't own a home computer.

Richard Mottl, 32, is an accountant who uses his Macintosh at home primarily to manage his finances. He rates his computer experience as average.

Chris DiNapoli, 50, is a puzzle editor and freelance graphics artist. On the job, she uses a Macintosh; at home, she uses a 486-based PC.

Kenneth Drucker, 47, owns an apparel manufacturing company. He uses PCs at home and at work. "I like trying out new equipment, so this is my fantasy," he said of his lab-testing experience.
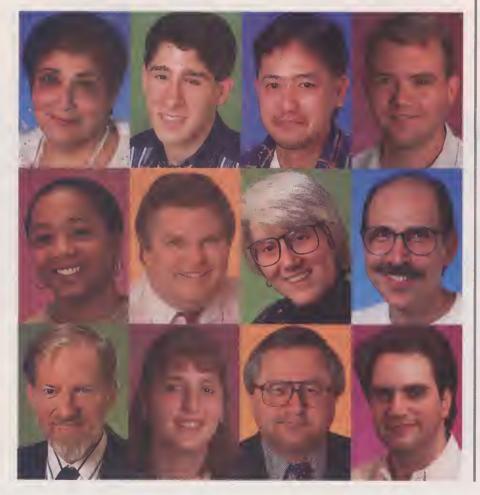
(Bottom row, left to right)
John White, 59, teaches computing at a community college. John uses a Mac at home and at work, but he was impressed by the Hewlett-Packard PC he tested: "This is a powerhouse," he said.

Tiffany Hanulec, 19, is a student who has been using computers since she was 7. She uses a 486-based PC, mostly to complete school assignments, surf the Internet and play games.

Joseph DelBroccolo, 50, is an art supervisor for a mail-order company. He uses a Macintosh at home and at work. But after testing, he said he might consider buying a PC.

Bertrand C. Emmett, 31, is a chiropractor. He rates his computer ex-

Hewlett-Packard
is proud to introduce its *exciting* new line of exercise machines…

for your
family's
imagination.

The HP DeskJet 600 series printers with the RealLife Imaging System.

How can you get more out of your home computer? Get an HP DeskJet 600 series printer and watch your family's computer creations come to life. HP's exclusive RealLife Imaging System delivers the most vivid colors and the sharpest blacks possible in inkjet printing. With HP DeskJet 600 series printers, anyone in your family can get outstanding results quickly and easily, with no special paper required.

HP DeskJet 600C printer
- Ideal starter color printer
- HP color kit included
- Fonts for the family disk

Every HP DeskJet 600 series printer gives you:
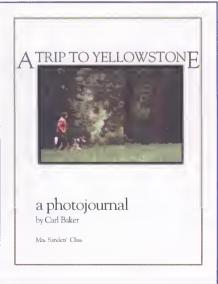
- Family-friendly, quiet operation
- Durability, with a 3-year warranty
- Printing on plain paper, envelopes, labels and cards
- Designed for Windows® 95
- 4 pages-per-minute black and white
- HP ColorSmart technology to optimize color automatically
- Value, about $299* for the 600C, $399* for the 660C or 660Cse

HP DeskJet 660C printer
- Perfect for kids or working at home
- Built-in, easy-to-use color
- Mac version also available

HP DeskJet 660Cse printer
- HP's premier DeskJet printer for home use
- HP Printing Kit for the Home included, see details on back
- Complete color printing solution for families

What is HP's RealLife Imaging System?

Precision printing with HP's exclusive REt technology

A TRIP TO YELLOWSTONE

a photojournal
by Carl Baker

Mrs. Sanders' Class

ColorSmart to optimize color automatically

New inks for superior results on any paper

What you see is what you can print.

All the printed pieces you see here can be easily printed with an HP DeskJet 600 series printer using popular software titles such as The Print Shop® Deluxe and The Amazing Writing Machine™ from Brøderbund®, Microsoft® Creative Writer and Microsoft® Fine Artist, and others.

perience as average, and he's looking forward to buying a new system for his office.

(Top row, left to right)
Vicky Moy, 24, is a field engineer for a technology company. She uses a PC at work, and considers her computer experience to be average.

James LaClair, 36, is a signal inspector for a railroad company. He uses PCs both at home and at work, and says he understands how new users could be nervous about buying a PC.

Kimberly Zimmer, 25, is a water-quality examiner. She rates her computer skills as average.
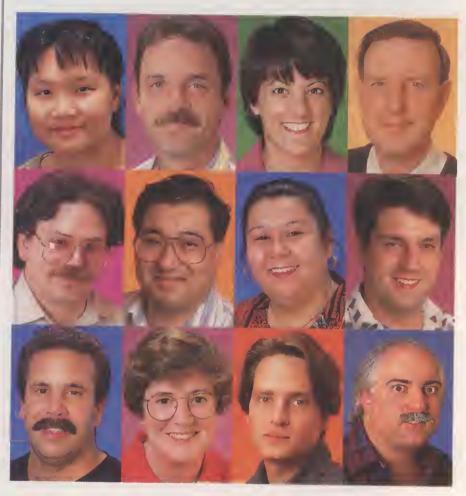
James Ostazewski, 43, is a computer specialist with the Federal Aviation Authority. He uses PCs both at work and at home. He said that a week of using the test PCs at home gave him a good sense of their strengths and weaknesses.

(Middle row, left to right)
Jake Richter, 31, is an information-technology director for a communications company. He uses PCs both at work and at home, and considers his computing experience to be above-average.

Homer Sun, 33, is a computer engineer who uses a Mac both at home and at work. "I need to make a big decision: Do I buy a PC, or get a new Mac? I think I need both," he told us after testing.

Christine Fong, 27, is a receptionist who has been using computers for 11 years. She has a Macintosh at home.

David Hanulec, 25, is a real-estate salesman who uses PCs both at work and at home; his current home computer is a high-powered 90-MHz Pentium PC.

(Bottom row, left to right)
Jim Gonzalez, 29, is an auto technician. He uses a 486-based PC at home. Instead of buying a new system right now, he plans to upgrade his computer within the next six months.

Ellen S. Carey, 33, is a reporter for a local television station in New York. She doesn't have a computer at home, but she uses a PC at work; she considers her computer skills to be above-average.
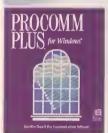
Douglas Going, 28, is a free-lance video producer who uses a Macintosh in his work. After testing a variety of PCs for our reviews, he remains a loyal Macintosh fan.

James Sarrantonio, 38, is an actuary. James rates his computer skills as above-average.

Inside your new PC *a tour under the hood*

Ever wonder what makes a typical desktop PC tick? Take our guided tour of a computer's major internal components and some of the features to consider when you shop. A tower (vertical) PC's layout differs from that of the desktop version pictured here, but the components and capabilities remain the same.

Whatever kind of computer you buy, it's always a good idea to look inside first to make sure that one of its most important components, the motherboard, is well organized. Make sure no connectors or cables interfere with add-in cards plugged into expansion slots, and that there are no memory slots hidden under components such as disk drives. Also, check to be sure add-in cards aren't installed too close to the top of the CPU (central processing unit), as that can cause the cards to absorb excess heat and wear out prematurely.

1 CPU (central processing unit)

The CPU, or processor, is your computer's brain. The majority of new home PCs run on Pentium CPUs at speeds ranging from 75 MHz to 133 MHz. For most users, a 90-MHz Pentium system is a good choice. Advanced CPUs generate a lot of heat, so a fan, or a radiator called a "heat sink," often will be attached to the top of the CPU.

2 Motherboard

The motherboard is your computer's main system board; it links all internal components with each other. Some new computers have certain devices—for example, hard- and floppy-disk controllers, or graphics chips—built right onto the motherboard.

3 Graphics card

The graphics card translates digital instructions into screen images. Ideally, your new PC will have a 64-bit accelerated graphics card for zippier performance. Built-in 3-D animation acceleration will make the most of animated games, while MPEG (Motion Pictures Experts Group) hardware support smooths video playback in MPEG-encoded CD-ROMs. (Some companies choose to provide a separate card for MPEG hardware support, while others support MPEG through software.)

4 PCI (Peripheral Component Interconnect) local bus slots

The 32-bit PCI local bus enables direct communication between your computer's CPU and add-in cards designed to be installed in PCI local bus slots—typically graphics cards and disk-drive controllers. It provides much faster performance than the older ISA bus; be sure a new computer has at least two free PCI local bus slots.

5 Sound card

Whether you want to compose music on your PC or simply listen to your favorite CD-ROM game's soundtrack, you'll need a sound card. Look for a PC that contains at least a 16-bit sound card, preferably with a wavetable synthesizer chip onboard. (Sometimes, a single card integrates sound, fax/modem and telephony capabilities.) Other key features include support for 3-D sound and a joystick port.

6 Fax/modem

A fax/modem connects your computer to other computers or fax machines over telephone lines. You can use it to connect to on-line services, and even to receive faxes directly on your hard drive. The modem ideally will communicate at speeds of 28.8 Kbps (kilobits per second), or, at minimum, 14.4 Kbps. Be sure the fax/modem and included software support telephony capabilities, which will enable your PC to take voicemail messages and more.

7 ISA (Industry Standard Architecture) bus slots

The ISA bus is a 16-bit data "highway" that the computer's CPU uses to communicate with most types of add-in cards (sound cards, internal modems and so on). Most PC cards fit in ISA bus slots; be sure your new computer has at least two of these slots free to accommodate devices you may decide to add to your system later.

8 Hard drive

Your computer stores programs and data not currently in use on the hard drive. Be sure your computer has at least 850 megabytes (MB) of storage, or, better yet, 1 gigabyte (GB). Both EIDE (Enhanced Integrated Drive Electronics) and SCSI (Small Computer Systems Interface) drives deliver excellent performance, but drives that conform to the SCSI specification typically cost more.

9 Power supply

Every computer has an internal power supply that converts the wall outlet's 115-volt alternating current to the computer's 5-volt direct current. The power supply should have at least one spare connector to accommodate an additional drive.

10 Floppy disk drive

Most new PCs include a single, 3.5-inch floppy drive. If your old computer had only a 5.25-inch floppy drive, you may want to add a 5.25-inch drive—they cost as little as $30—to your new PC to make it easy to transfer data from your old computer to your new one.

11 CD-ROM drive

To play CD-ROM software, you need a CD-ROM drive for your PC. Today's multimedia computers typically are sold with quad-speed (4X) drives, which means they transfer data at 600 Kbps, or four times as fast as the original, single-speed CD-ROM drives.

12 Drive bays
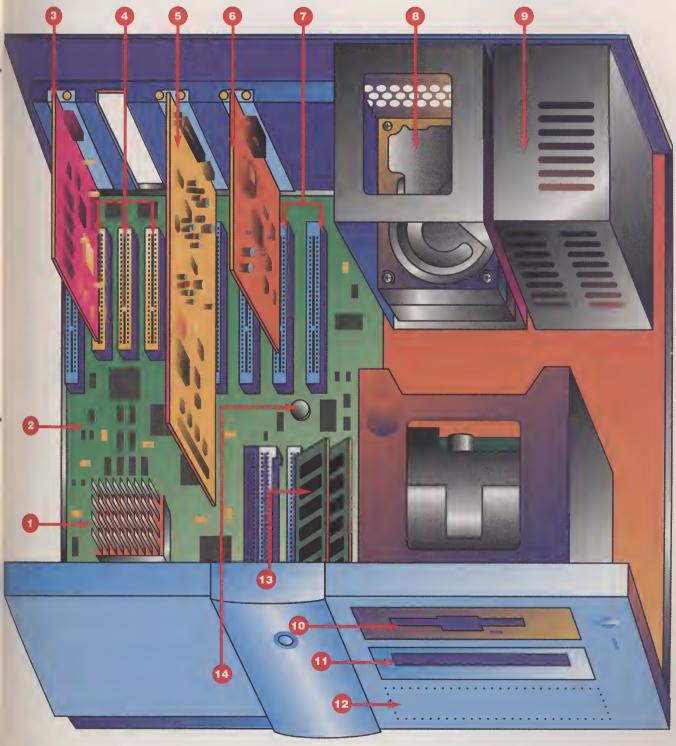
On many new computers, you'll find the hard drive mounted in the back, near the power supply. This leaves at least one drive bay at the front free for easy installation of devices such as tape-backup drives. A new PC should have at least two half-height (1⅝-inch) drive bays available to let you add additional hard drives and other peripherals.

13 RAM (random access memory)
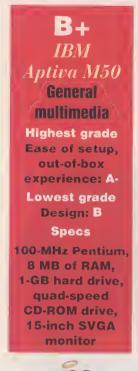
The computer holds all the programs you are currently running, as well as the data with which you're working, in its RAM. Consider 8 MB the minimum you need; 16 MB is better. For future upgrades, make sure the motherboard has at least four SIMM (single in-line memory module) slots.

14 Battery

The battery keeps sending power to your PC's internal clock when you've switched off the computer's main power source. You can expect it to last for several years, but it probably will need to be replaced at some point, so look inside before you buy a system to make sure it is both accessible and easy to remove.

• IBM Aptiva M50

• Packard Bell Legend 814CD

B+
IBM Aptiva M50
General multimedia

Highest grade
Ease of setup, out-of-box experience: A-

Lowest grade
Design: B

Specs
100-MHz Pentium, 8 MB of RAM, 1-GB hard drive, quad-speed CD-ROM drive, 15-inch SVGA monitor

GOOD NEWS
• Strong components
• Features for the entire family

BAD NEWS
• Drive door seems flimsy

#1 Looking for a reliable home computer with something for the whole family? Our testers might recommend the IBM Aptiva M50, which tied for first place with the Packard Bell Legend 814CD.

The Aptiva M50 topped their scorecards for overall quality (B+), thanks in part to strong features such as the fastest fax/modem among the PCs we tested (28.8-Kbps); 3-D sound and 30-watt speakers, which put the unit near the top in sound quality; and its unique telephone answering system, which restarts the PC if a call comes in after you've turned the power off, takes the message, then shuts down again. Our testers also gave very high marks to the software titles IBM includes with the system (A-).

In our speed tests (see page 268), the Aptiva M50's performance generally fell in the middle of the pack. We had to use an off-the-shelf Windows 95 upgrade rather than IBM's optimized version (which at press time was expected to be installed in the Aptivas on store shelves by December). The PC's performance could improve with a version tailored to include IBM system drivers.

The only thing the Aptiva M50 testers slammed was the door panel over the CD-ROM and floppy drives; they considered it flimsy, accounting in part for the PC's lowest grade, for design. Otherwise, they said, the M50 is an A-1 selection.

#1 For the second year in a row, a team of consumer judges sent a Packard Bell PC to the winner's circle. The Legend 814CD (also called the Multimedia Pentium P100) shares our Tester's Choice label with the IBM Aptiva M50.

The Legend 814CD had our testers' favorite documentation (A) and design (A-). Although some complained that the cabinet and keyboard didn't feel solid, they loved the color-coded plugs for the mouse and monitor. And while the Legend 814CD's sound-quality rating (B) was among the lowest the testers handed out, they liked the space-saving, monitor-mounted speakers.

Testers' perceptions of the 100-MHz system's performance earned it a top-flight grade of A, despite our lab tests having found the Legend 814CD's speed to be unexceptional.

All the testers liked the included software, starting with the Navigator program, a tour that shows newcomers how to work with the PC. "It was a good selection of family software," said Kenneth Drucker. "There was lots of kids' stuff, a crossword puzzle, an Internet browser and a cooking program I liked."

The Legend 814CD also adds to users' overall convenience by including a TV-like remote-control device that lets you control sound or even presentations from afar.

Packard Bell may have won our Lab tests for two consecutive years, but it's computer buyers who will get the grand prize—a solid PC for their money.

B+
Packard Bell Legend 814CD
General multimedia

Highest grade
Performance: A

Lowest grade
Overall value, sound quality: B

Specs
100-MHz Pentium, 8 MB of RAM, 1.2-GB hard drive, quad-speed CD-ROM drive, 15-inch SVGA monitor

GOOD NEWS
• Easy to use
• Good software

BAD NEWS
• Second-rate keyboard

• *HP Pavilion P75*

If first impressions really do count, consumers have much to look forward to from Hewlett-Packard. Our testers rated the HP Pavilion P75—one of the first in the company's new home computer line—just a few points behind the co-winners, the IBM Aptiva M50 and

B+
HP Pavilion P75
General multimedia

Highest grade
Out-of-box experience: A

Lowest grade
Documentation: B

Specs
75-MHz Pentium, 8 MB of RAM, 850-MB hard drive, quad-speed CD-ROM drive, 14-inch SVGA monitor

GOOD NEWS
• **Sleek design**
• **Color-coded cables**

BAD NEWS
• **Skimpy documentation**

Packard Bell Legend 814CD.

Our testers thought the Pavilion P75's sleek, rounded look would fit right in with their home decor; its B+ for design trailed only the Legend 814CD. The unit led the pack in both overall value (A-) and out-of-box experience (A). And like the Packard Bell machine, the Pavilion P75 has color-coded cables to guide you when plugging in devices.

HP also includes an exclusive software interface called "Personal Page," which lets each user set up his or her own "view" of the PC and use that to get around. "This is a slick setup," said Jake Richter. The testers also were pleased with the system's selection of family-oriented software.

Though testers had no quibbles with performance, our lab tests found this 75-MHz PC near the bottom; but that's not too surprising, since faster processors run most of the other systems in our group.

John White, a computing professor who had purchased a PC prior to our tests, only regretted he didn't have time to get to know the Pavilion P75 even better: "This is a phenomenal bargain; I wish I had bought it."

• *Gateway P5-100*

B+
Gateway P5-100
General multimedia

Highest grade
Ease of setup: A

Lowest grade
Overall quality: B

Specs
100-MHz Pentium, 8 MB of RAM, 730-MB hard drive, quad-speed CD-ROM drive, 15-inch SVGA monitor

GOOD NEWS
• **Great sound**
• **Easy to set up**

BAD NEWS
• **Little entertainment software**
• **Documentation is poorly organized**

The Gateway P5-100's overall grade of B+ put it just below the top three general multimedia machines. While it has several technical virtues, testers had some problems with two big issues for home users: documentation and software selection.

Our testers tapped the P5-100 as the easiest PC to set up (A), and the system with the best sound quality (A-). It did very well in performance tests in our lab, too, registering as one of the fastest contenders.

But after the straightforward setup, testers had to struggle a bit to learn about the machine's features and figure out how to use them; they particularly disliked having to flip around in separate manuals to familiarize themselves with the system's various parts. Although they liked the quality of the documentation (B+), they felt it would be more helpful in a single, cross-referenced volume.

Testers also found the entertainment-software selection lacking. "I thought it would have more games and stuff," said James LaClair. And they turned up their noses at Bob, Microsoft's "social interface," which uses a cartoon-like home metaphor to navigate you around the PC.

"The Gateway PC is a great value," Vicky Moy said, "but the company should remember that software is important, too."

• Macintosh Performa 5215CD

GOOD NEWS
• Easy to set up
• Operating system is a breeze to use

BAD NEWS
• Difficult to upgrade
• Poor sound

Coming in fourth of nine general multimedia computers tested wasn't a bad showing for the Performa 5215CD, but it's a bit of a slip for the Macintosh line from last year, when the Performa 578 finished in second place.

The Performa 5215CD had generally respectable grades, and tied with the Epson Action Tower 8200MM for the top grade in monitor quality (A). But its low scores for sound quality (C+) and performance (B-) hurt its overall grade considerably.

The Performa is an all-in-one machine, which means the monitor, speakers and cabinet are combined. This design can be a double-edged sword: The system is extremely easy to put together, but it's either difficult or impossible to upgrade individual components. "The fact that the screen is attached to the computer bothers me a lot," said Joseph DelBroccolo. "I love Macs, but not this particular model."

Testers liked using the Macintosh operating system, System 7.5. (A separate panel that judged operating systems in *HomePC*'s November issue picked System 7.5 second to top-scoring Windows 95 in their tests.) Even though several people said they didn't like this particular model, many told us that System 7.5 alone would make a different Macintosh model a welcome addition to their homes.

• Compaq Presario 7170

Compaq has sold a lot of Presarios to PC shoppers in the two years since the line hit the streets. Our testers were neither swept off their feet nor overly disappointed by the new Presario 7170; they gave it solid B's in nearly every category—it just didn't stand out in any particular area.

For starters, testers didn't care much for the Pre-

GOOD NEWS
• Presario Plaza interface makes system easy to use
• High reliability

BAD NEWS
• Small monitor

sario 7170's 14-inch monitor, which was too small for their comfort; it received its lowest grade for monitor quality. And while its B score for sound quality was higher than that of some of its rivals, testers told us that the speakers did not sound as good as they would have hoped.

System performance was only fair to middling: Testers gave the machine a B (and one of the lowest point totals) in that category. Our speed tests in the lab confirmed that this 90-MHz computer typically fell among the slower PCs. Another 90-MHz machine, the Quantex P5/90, ran faster.

On the plus side, Compaq consistently shows it understands its customers' needs; for example, it provides Presario Plaza, an interface that gives users an alternative way to work with their computer; that feature won big raves from our testers.

They also liked the Presario 7170's included software. "I would buy this system," said Kim Zimmer. "It's a nice size, and it has a well-rounded software selection. It seems like a good deal."

• *Epson Action Tower 8200MM*

The overall grade points racked up by the Epson Action Tower 8200MM placed it sixth in the field of nine general multimedia computers our testers compared. Its overall B rating follows close on the heels of the Presario 7170; with the only 17-inch display in the group, it's no surprise the Epson took one of the top grades (an A, tying with the Performa 5215CD) for monitor quality.

Testers had a generally favorable impression of the Action Tower 8200MM's performance (B+). In our speed tests, it performed comparably to the 75-MHz general multimedia system from Hewlett-Packard. But the PC took a hit on support issues: Its limited documentation scored poorly (B), and although we didn't grade the category, testers complained about hotline support. "I tried calling, but it was impossible to get through," said Vicky Moy.

By and large, testers liked the included software. The system scored a relatively low B, however, due to one tester's very harsh grade, which brought the average down.

Our testers appreciated the tower's roomy interior, which holds seven drive bays for additional devices, but several disliked the toll that takes on the system's overall look. "I don't like the tower concept.... It's cumbersome," said Joseph DelBroccolo. In terms of home decor, the Epson just didn't stand tall.

B

Epson Action Tower 8200MM
General multimedia

Highest grade
Monitor quality: A

Lowest grade
Overall value: B-

Specs
75-MHz Pentium, 8 MB of RAM, 850-MB hard drive, quad-speed CD-ROM drive, 17-inch SVGA monitor

GOOD NEWS
• **Large, easy-to-view monitor**
• **Easy to expand**

BAD NEWS
• **Clunky tower design**

• *Midwest Micro Elite*

B

Midwest Micro Elite
General multimedia

Highest grade
Ease of setup: B+

Lowest grade
Design: B-

Specs
100-MHz Pentium, 8 MB of RAM, 1-GB hard drive, quad-speed CD-ROM drive, 15-inch SVGA monitor

GOOD NEWS
• **Solid, reliable machine**
• **Easy to expand**

BAD NEWS
• **High price**
• **Skimpy documentation**

While the Midwest Micro Elite's overall B grade is certainly nothing to sneeze at, the 100-MHz system fell closer to the bottom of the general multimedia computer group than the top for our testers—despite its blazing performance.

The Elite finished in first place in nearly all our lab tests for performance, yet it took no top grades in any category our testers rated. Still, the group had some good things to say about the machine. They found it reliable and powerful, and they applauded the five available drive bays for add-in components like an additional hard drive or a tape-backup device.

"Overall, this is a solid computer," summed up Trent Schneider.

What bothered testers most was the system's dearth of documentation; the Elite shared the lowest grade in that category (B-) with the Quantex P5/90.

And although the testers gave the Elite a B+ for its software selection, overall they found the titles generally more appropriate for business users than for the general consumer.

Finally, while other computer models in our tests carried higher list prices, several of the testers felt they simply didn't see enough "special touches" to justify paying $2,349 for the Elite.

Quantex P5/90

Our testers found the Quantex P5/90 oversized and unattractive; in their eyes, it had very little to distinguish itself from the competition—at least in a positive sense. "This had the widest tower—humongous—that I have ever seen," said Tiffany Hanulec.

But even though it finished last in the general multimedia category, the system had some strong points. Although testers complained about the size, it makes the unit extremely expandable—the P5/90 has a cavernous capacity of 11 drive bays for hard drives, CD-ROM drives or tape-backup devices. It also scored extremely well in our speed tests.

The Quantex PC earned its highest grade for ease of setup (B+), but all the other systems we tested scored better. It also finished last in out-of-box experience (B), and its documentation grade (B-) tied for last place with the Midwest Micro Elite. Many testers complained that the system simply didn't provide enough information to help them get it up and running quickly.

The testers were also quite unimpressed with the software selection, again the lowest in the category (B-).

Despite the computer's last-place rating and the failings our testers cited, they decided the P5/90 is a full-function PC that would meet their family's needs; they just seemed to think there were many other systems that would do a lot better.

AT&T Globalyst-363

The AT&T Globalyst-363 is going out in a blaze of glory: It took the top grade in the home-office category—and then became a casualty of the second breakup of AT&T. In September, the company announced that it's getting out of the computer business.

For some, that will be reason enough not to buy this excellent machine, but others will see a chance to get a fine PC at what is sure to become a bargain price. (AT&T will stop shipping PCs on Dec. 22, but you should be able to find the unit on store shelves into the new year.)

One obvious hedge about choosing this PC is concern over getting technical support in the future. AT&T has pledged to continue its lifetime support policy for the system.

If you decide to make what might be considered a risky purchase, let it be some consolation that this system got higher home-office grades in most categories than the AST Advantage P100. While far from a muscle machine, in most tests it matched or came close to the performance of other 75-MHz PCs.

"It's a very professional-looking computer, and it ran nicely, too," said Richard Mottl. If you're a risk-taker, then you'll probably like the Globalyst-363; if you can get the support you need, you may be laughing all the way to the bank when the fire sale begins.

• *AST Advantage P100*

B+

AST Advantage P100

Home-office computer

Highest grade
Software selection: A-

Lowest grade
Documentation: B

Specs
100-MHz Pentium, 16 MB of RAM, 1-GB hard drive, quad-speed CD-ROM drive, 15-inch SVGA monitor

GOOD NEWS
- **Easy-to-use interface**

BAD NEWS
- **Internal components are poorly organized**
- **Flimsy keyboard and mouse**

While the AST Advantage P100's overall grade lagged slightly behind that of the AT&T Globalyst-363, it beat out the AT&T unit on its software selection (A-) and its overall value (B).

It didn't do as well in the design (B) and overall quality (B+) ratings. Testers were concerned about wires inside the PC that were either entangled or stretched across other components in a seemingly haphazard way. That can be an accident waiting to happen—a cable that's not carefully pinned down or tucked out of the way could get damaged. In addition, "the keyboard and mouse had this very light, flimsy feel," said Bertrand Emmett. "The AT&T machines seemed to be of an overall better quality."

This 100-MHz model was an adequate performer, yet its speed in our lab tests actually failed to measure up to computers such as the Quantex P5/90, despite the latter's slower processor.

Even so, many testers liked the Advantage P100. "It seemed friendly to use," said James Sarrantonio. The unit includes AST Works II, a desktop navigator that makes it easy to use.

Overall, our testers found the system to be not too far out of the AT&T Globalyst-363's league; if AT&T's imminent departure from the computer business worries you, the Advantage P100 would be a solid—and possibly safer—choice for a home-office PC. •

HOMEPC Take us shopping with you!

Picking the *right computer*: what's *inside* six leading models for the home and home office

	IBM IBM Aptiva M50	Packard Bell Packard Bell Legend 814CD	AT&T AT&T Globalyst 363	Hewlett-Packard HP Pavilion P75	Gateway Gateway P5-100	Apple Computer Macintosh Performa 5215 CD
Manufacturer and model name	IBM / IBM Aptiva M50	Packard Bell / Packard Bell Legend 814CD	AT&T / AT&T Globalyst 363	Hewlett-Packard / HP Pavilion P75	Gateway / Gateway P5-100	Apple Computer / Macintosh Performa 5215 CD
Processor	Intel 100-MHz Pentium	Intel 100-MHz Pentium	Intel 75-MHz Pentium	Intel 75-MHz Pentium	Intel 100-MHz Pentium	PowerPC 75-MHz RISC
Memory	8 MB	8 MB	8 MB	8 MB	8 MB	8 MB
Hard drive capacity	1 GB	1.2 GB	1 GB	850 MB	730 MB	1 GB
Floppy drives	1 3.5-inch	1 3.5-inch	1 3.5-inch	1 3.5-inch	1 3.5-inch	1 3.5-inch
No. of total drive bays	4	6	4	4	7	3
No. of free drive bays	1	3	1	1	3	0
CD-ROM drive	Quad-speed (4X)	Quad-speed	Quad-speed	Quad-speed	Quad-speed	Quad-speed
Graphics adapter	Super VGA, 1,024-by-768-pixel resolution	SVGA, 1,024-by-768-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	SVGA, 1,280-by-1,024-pixel resolution	832-by-624-pixel resolution
MPEG support	Yes, software	Yes, software	No	No	No	Yes, hardware
Monitor	15-inch SVGA, 1,280-by-1,024-pixel resolution	15-inch SVGA, 768-by-768-pixel resolution	14-inch SVGA, 768-by-768-pixel resolution	15-inch SVGA, 1,024-by-768-pixel resolution	15-inch SVGA, 1,024-by-768-pixel resolution	15-inch, 832-by-624-pixel resolution
Fax/data modem	28.8-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps	14.4-Kbps
Sound capabilities	16-bit, wavetable synthesis, 3D sound	16-bit, FM synthesis, 3D sound	16-bit, wavetable synthesis	16-bit, FM synthesis	16-bit, wavetable synthesis	16-bit, FM synthesis
Telephony	Yes	Yes	Yes	Yes	No	Yes
Speakers	30 watts per channel	10 watts per channel (with adapter)	Information not available	5 watts per channel	4.5 watts per channel	Information not available
No. of ISA/PCI expansion slots	3 ISA/2 PCI	3 ISA/2 PCI	5 ISA/3 PCI	3 ISA/2 PCI	3 ISA/4 PCI	1 PDS (Processor Direct Slot)
No. of free ISA/PCI expansion slots	2 ISA/2 PCI	2 ISA/2 PCI	4 ISA/3 PCI	2 ISA/2 PCI	1 ISA/3 PCI	1 PDS
No. of free SIMM sockets	2	2	4	2	2	1
No. of software programs included	12	34	22	26	18	26
Warranty	3 years limited	1 year on-site	1 year on-site	1 year on-site	1 year on-site, 3 years limited	1 year on-site, 1 year limited
Technical support	Yes, 24 hours	Yes, 24 hours	Yes, 24 hours	Yes, 24 hours	Yes, 24 hours	Yes, 24 hours
Extras	Microphone	Microphone, remote control	Microphone	Microphone	None	Microphone, TV hookup
Price	$2,788	$2,699 (est. street price)	$2,365	$2,200	$2,524	$2,300 (est. street price)

Note: Configurations and prices were accurate at press time, but are subject to change at the manufacturer's discretion.

HomePC

Take us shopping with you!

Picking the *right computer*: the *HomePC* tear-out guide and checklist

Confused by the various built-in features, add-on options and prices of the many computer systems you see when you shop? Even experienced PC users have trouble keeping track of what one model offers compared with another. To help, bring along this guide and fill in the specifications for the machines you're considering as you shop. We're also included for comparison our recommendations for a top-notch system, with a setup that exceeds many in our Consumer Lab tests; you'll need to decide which of these features are most in line with your needs and your budget.

	HomePC recommends	Choice A	Choice B	Choice C	Choice D
Manufacturer					
Model name					
Processor	90-MHz Pentium or 75-MHz PowerPC				
Memory	16 MB				
Hard drive capacity	850 MB to 1 GB				
Floppy drives	One 3.5-inch				
No. of total drive bays	5				
No. of drive bays available	2				
CD-ROM drive	Quad-speed (4X)				
Graphics adapter	Super VGA, 1,280-by-1,024-pixel resolution				
MPEG support	Yes, software or hardware				
Monitor	15-inch SVGA, 1,024-by-768-pixel resolution				
Fax/data modem	28.8-Kbps				
Sound capabilities	16-bit, wavetable synthesis				
Telephony	Yes				
Speakers	10 watts per channel				
No. of ISA/PCI expansion slots	5 ISA/3 PCI				
No. of ISA/PCI expansion slots available	2 ISA/2 PCI				
No. of SIMM sockets available	2				
No. of software programs included	10				
Warranty	1 year on-site				
Toll-free technical support	Yes, 24 hours				
Extras	Joystick, microphone				
Price	$2,500 to $2,700				

All your answers are in this box.

Ask yourself one question. Are you getting everything you need out of your computer? If the answer is no, you are not alone. Most people get by with a few basic commands and a lot of mistakes. Most people don't have the time or the energy to read manuals or take classes. Many people give up trying to use their computers in new and exciting ways. CompuWhiz users are different. CompuWhiz videotapes will show you how to operate the most popular software programs in just a few hours. Our videotapes were created by software training experts with recommendations from users like yourself. And the quick reference guide gives you the ability to watch only the parts you need. For only $99.95 CompuWhiz includes four instructional videos covering Windows, Excel, Wordperfect, and Quicken.

After watching the CompuWhiz videotapes you will be able to quickly and easily create professional letters, graphics, spreadsheets, personal finance calculations, and more. CompuWhiz has already helped tens of thousands of satisfied customers, including business executives, housewives, students, and engineers. CompuWhiz has been featured on over fifty television networks in the United States and Canada. And CompuWhiz is risk-free, because your satisfaction is guaranteed. Use the fast and simple approach to learning computers. CompuWhiz Instructional Videotape Learning System.

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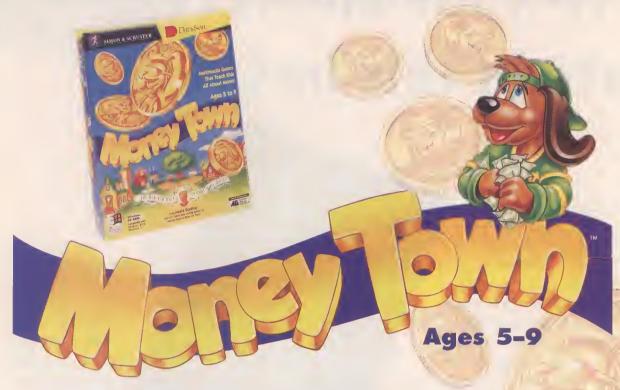
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CIRCLE READER SERVICE NUMBER 95

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Just duet: making music with your PC

1 **MIDI keyboards are packaged with a cable that has either one or two circular connectors at one end, and a rectangular, 15-pin connector at the other. Plug the rectangular end into the joystick/MIDI port on your sound card at the back of your PC. (It's easy to recognize; it's the only port that can accommodate 15 pins.)**

Before you begin, be sure...

- Your PC is equipped with audio-editing software.
- Your PC has a sound card with a 15-pin joystick/MIDI port.
- Your keyboard is a MIDI device.

You may already think of your home computer as an entertainment center, but did you know that with a little fine-tuning, you can use it to write, play and record music?

Whether you want to get funky or practice your Chopin, an audio-editing software program and a musical keyboard that supports the Musical Instrument Digital Interface (MIDI) standard are all you need to turn your PC into a recording studio.

A MIDI keyboard doesn't send out audio signals the way, say, a guitar plugged into an amplifier does; rather, it produces computer code, which the audio-editing software translates into sounds you can hear through your computer's speakers or "loop" to the MIDI device for playback.

To perform this upgrade, you'll need Windows 3.1 or Windows 95 and an audio-editing program—anything from the basic one many manufacturers preinstall on home computers to versatile dedicated packages, such as Cakewalk Home Studio, which may cost $100 or more.

The way you'll record and edit your sound files will depend on the software you choose, but if you follow the steps beginning at the left, you won't need a roadie—everything should be set up within an hour, and you'll be calm, cool and composing.

by sean fulton

2 If you want to play games as well as music at your PC without switching cables constantly, check to see if your MIDI cable has a separate plug you can use to attach a joystick (see above). If you don't see a separate joystick connector, you can buy an adapter/cable combo for less than $20.

3 Plug the circular end of the MIDI cable into your musical keyboard. If the cable has two circular connectors, push the one marked Out into the In port on your MIDI keyboard, and plug the connector labeled In into the port marked Out. This creates a "loop" between your computer and the MIDI device, so you can generate or play back sounds from either device.
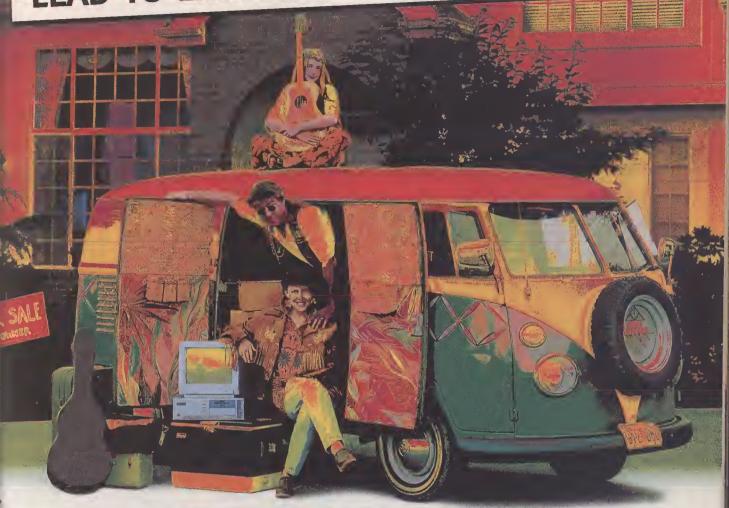
4 Plug one end of your keyboard's AC power adapter into the keyboard, then plug the other end into a surge suppressor.

5 Start your computer, launch Windows 3.1 or Windows 95, and open the Control Panel. If you're using Windows 3.1, double-click on the MIDI Mapper icon (see the upper screen above). In Windows 95, click on the Multimedia icon (see the lower screen), then click the MIDI tab.

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MIDI Mapper

Show
○ Setups ○ Patch Maps ○ Key Maps

Name: FM Synth & MIDI
Description:
FM Synth & MIDI
FM Synth (Base)
FM Synth (Ext)
MIDI Out Port

Cancel
Delete
Help

Multimedia Properties

Audio | Video | MIDI | CD Music | Advanced

MIDI output

○ Single instrument
External MIDI Instrument

MIDI for External MIDI Port
External MIDI Instrument
MIDI for Internal OPL2/OPL3 FM Synthesis

○ Custom configuration
MIDI scheme
Configure

Add New Instrument

OK | Cancel | Apply

Cakewalk Home Studio

Cakewalk Home Studio   README.WRI

6 In either Windows 3.1 or Windows 95, you'll see a window that tells your sound card how to process the audio signals you play. (The top screen above shows Windows 3.1; the bottom screen is from Windows 95.)

In general, selecting a MIDI device means the music you play will be heard through the keyboard, while selecting an FM device (your sound card) means you'll hear the audio through your computer's speakers. Some sound cards let you hear MIDI and FM devices simultaneously. The specific setting you need depends on your sound card; consult the card's documentation for instructions.
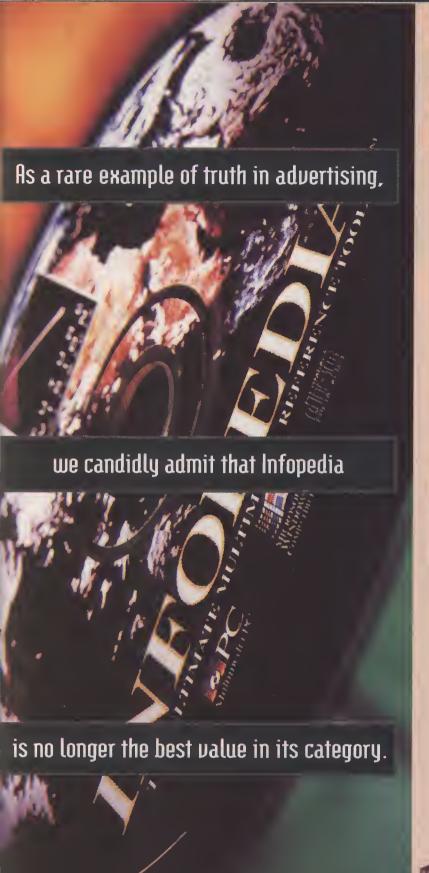
Once you've made your selection, save your settings and exit the Control Panel. If you've changed any settings, restart Windows.
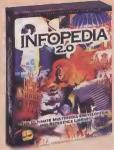
7 Launch your audio-editing software (we used Cakewalk Home Studio). If it has its own mapping scheme (which stipulates how sounds will be processed and played back), check the documentation to make sure you pick the right settings. If it doesn't have a mapping scheme, the information you provided in Step 6 will be sufficient.

8 Switch on your MIDI keyboard's power. Some MIDI devices can process MIDI signals "locally" (without going through a PC). If yours does, make sure this feature is turned off. (Check your MIDI keyboard's documentation for instructions.) Your computer is now set up to process MIDI signals; when your PC's power is turned off, you won't hear any sounds from the keyboard.

9 Your hookups are now complete. If you don't hear any sound when you play the keyboard, make sure that both your MIDI keyboard and computer speakers are turned on.

10 Most Windows sound-editing software allows you to record any music you play. Open the File pull-down menu in your audio-editing program, then click on New to open a new audio file. Follow your program's instructions, and your PC will be instrumental in shaping your future musical projects. ●

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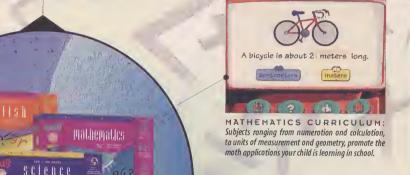
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It's amazing what a simple upgrade can do. The Yamaha Waveforce DB50XG sounds so good, you'll need to check your CD-ROM drive to make sure you're not playing an audio CD. But first you'll have to check with your favorite computer reseller.

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After spending the day teaching high-school students how to prove theorems and calculate cosines, 46-year-old New York City math teacher Jeff Shermack heads off to his second job. As a self-employed travel agent, Shermack works to find his clients the best bargains on flights and hotel reservations. The extra income is welcome, but there's one thing that complicates the equation: taxes.

"The big question for me," Shermack says, "is how I handle my end-of-the-year estimated tax payment." Four times a year, Shermack sends the IRS a payment for his extracurricular earnings. The final installment for 1995 is due in January 1996—and that's the last opportunity he has to square his income status with Uncle Sam for the year. If his estimates of his total tax don't wind up within 10 percent of the real payment due on April 15, the IRS could hit him with a penalty.

Even with his math background, Shermack doesn't take any chances with these figures: He uses Turbo-Tax Head Start edition, the "early-bird" version of the popular tax-preparation program, which, like the three other top-selling tax-prep packages, doesn't ship in its final form until sometime after New Year's Day. Using the early-bird program, Shermack can begin

working on his 1995 return; once he has a rough idea of what he'll owe for the whole year, he opens TurboTax Head Start's estimated-tax worksheet to experiment with estimated payment amounts. His goal is to pay as little as possible in January without incurring a penalty later. This way, he can leave

Tax planning: give Uncle Sam a run for your money

more money in the bank—where it'll continue earning interest until April, when the more significant part of his tax bill comes due.

Tax and TurboTax (called MacIn-Tax in its Macintosh version)—are released each fall; they can help almost anyone assess his or her federal tax liabilities or ferret out end-of-year deductions that will help keep Uncle Sam from digging quite so deep in the wallet.

The early editions incorporate all the tax forms you would likely need, and they handle all the calculations for you after you input your data. Just like the final versions, they can generate a tax return based on your answers to in-

People who report earnings from part-time ventures, or who run full-time businesses and pay estimated taxes, aren't the only ones who can take advantage of early-bird tax programs to prepare for that dreaded April day. Early-bird versions of all the popular tax-calculation packages—Kiplinger Tax-Cut, Personal Tax Edge, Simply

terview questions about everything from your dependents to your capital gains for the year. (If you have a sufficient level of tax expertise, you may choose to skip the Q&A and work within the forms directly.)

The early-bird editions use preliminary 1995 tax rates and can print only preliminary returns, which aren't accepted by the IRS. Tax-software publishers must wait until Dec. 31 to finalize their pro-

by gus venditto

grams, in order to avoid missing any last-minute changes to the tax code.

For many individual taxpayers, the main advantage of calculating returns using early-bird tax software is time: Apart from getting your return more or less in order so you don't have to scramble in the spring, it makes a world of difference to your financial strategy if you know in October that you're facing a whopping tax bill in April.

An early-bird return can help determine if there's any action you may be able to take before year's end to qualify for deductions. For instance, if you've paid big medical bills this year, feeding your data into the programs' medical-deduc-

package closer to tax time. And once you've entered information into the TaxCut Planning Edition, you'll be able to import it easily, along with all your other data, into the final version of TaxCut; in fact, all the final editions of the tax programs read entries from their plan-ahead counterparts.

The early-bird editions also feature "What If...?" analyses, which let you easily compare the return you create using your existing data with the same return after the adjustment you're considering. For example, many mutual-stock funds did very well this year, and perhaps you're considering selling off some investments to pay for a

Early-bird tax programs are keen on 'deductive' reasoning.

cashing in those funds in '95 after seeing the difference. Since long-term capital gains are taxed at a lower rate than short-term gains, holding on to your investments for

Tax programs include 'What If' analyses, which let you see just how a financial strategy you're considering will affect your return.

tion worksheets will let you see if your health care payments approach 7.5 percent of your income; if so, it may be worth going for any necessary treatment before January, because expenses above this percentage are deductible.

Another option is to total up the miscellaneous expenses you've entered in the software's Schedule A form; spending a little more in December on professional dues, education or job-hunting fees may qualify you for a tax allowance—you can deduct any such expenses that exceed 2 percent of your income.

Early-bird software may also tip you off about strategies that could mean more to you now than if you hear about them in the final versions next year.

For example, as you complete a tax form in TaxCut, you can click on the Info button for quick advice that helps ensure you claim all the deductions to which you're entitled. While filling out your Schedule A in the early-bird software, for instance, you may learn that you can take deductions in conjunction with your charity work, including the cost of driving to your organization's holiday benefit. You're probably more likely to record such claims while the event is still fresh in your mind than if you wait to use the final software

Caribbean holiday vacation. Using, say, Simply Tax, you can choose What If from the View menu and type your expected proceeds from the sale of those mutual funds into one of the alternate tax plans, then zoom to the bottom of the screen to see how this action will affect the sum you owe the government. Indeed, you may think twice about

Jeff Shermack
Age: 46
Occupation: Math teacher
Goal: To pay as little as possible on fourth-quarter estimated taxes without incurring a penalty
Software: TurboTax Head Start edition

a couple of months could save you a bundle.

Making plans for April 16
Some users find they don't need early-bird editions—they plan all year round. Christopher Dunn, a 37-year-old manager of mortgage-backed securities in Washington, D.C., uses TurboTax, but not the early-bird version. "In December, I'm more interested in the holidays than taxes," he says.

One reason Dunn feels this way is that he tracks his tax status closely all year long within his personal-finance program, Quicken. He assigns transactions that affect his taxes—a donation to a children's fund, for instance—to the proper category—in this case, charity. Doing so marks the transaction as a tax-related item for his Schedule A.

Then, Dunn can just click on Quicken's Tax Planner menu option to see an estimate of his tax bill to date. Personal-finance managers such as Managing Your Money and Microsoft Money also let you assign categories to transactions and view reports of your current tax status.

When Dunn sits down with the final edition of TurboTax in '96, he plans to use the Quicken Tax-Link option on TurboTax's File

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financial adviser

menu. (The early-bird TurboTax edition has this option, too.) Tax-Link displays a report showing how tax-related Quicken transactions will be imported into his return; for instance, every transaction in the charity category in Quicken should be linked with Schedule A in TurboTax.

Importing such financial data will be easier this year: You can now edit categories from within TaxLink. For example, last year, to change the list of payments assigned to a non-tax-related category called "fund drive" in Quicken to link them with Schedule A, you'd have to quit TaxLink and run Quicken to set new tax parameters for transactions in that category. This year, you can do it all from TaxLink. While the tie-in from Quicken to TurboTax is seamless, all the major tax programs can at least read the *.txf* finance files created by Quicken, Managing Your

Feeling in the pink? TurboTax helps make sure you don't go into the red.

Money or Microsoft Money.

Whether you use early-bird tax editions to plan ahead or you stay on top of your tax transactions throughout the year in your finance program (and doing both isn't a bad idea), one thing's clear: You may owe your PC a debt of gratitude when April 15 rolls around. ●

Gus Venditto is the author of Your Money: Total Financial Planning on Your Computer.

shopper's guide

Here's how to get more information on the tax software mentioned in this article.

Kiplinger's TaxCut
Both the floppy-disk and CD-ROM versions include Kiplinger's own tax advice; the CD-ROM adds video clips of Kiplinger experts.
$11.95, Planning; $39.95, Final Filing (Windows, Windows CD-ROM) from Block Financial, (800) 235-4060, (203) 255-1441. Circle #550

Personal Tax Edge
This is the best bargain in tax software; you get both the early and final versions for $19.95. Tax advice is enhanced by the text of the best-selling guide *J.K. Lasser's Your Income Tax.*
$19.95, Tax Planning and Final Filing editions (DOS, Windows, Windows 95, Macintosh, Windows CD-ROM, Macintosh CD-ROM) from Parsons Technology, (800) 223-6925, (319) 395-9626. Circle #551

Simply Tax
Simply Tax sports a cleaner interface than last year's version; it has explanations based on IRS publications, but no other expert advice.
$9.95, Plan Ahead; $19.95, Final Filing (Windows, Windows 95, Windows CD-ROM, Windows 95 CD-ROM) from 4Home Productions, (800) 773-5445, (516) 342-2000. Circle #552

TurboTax, MacInTax
These best-sellers have stellar interfaces. The text of *How To Pay Zero Taxes* and video clips of tax experts enhance the CD-ROMs.
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Note: Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

The MultiPASS™ 1000 Document Processing System combines a laser-quality printer, a plain paper fax, a PC fax, a scanner, a personal copier and a telephone — all in one compact unit. MultiPASS Desktop Manager for Windows® software is included to manage printing, faxing, scanning and telephone functions. Plus you can print and fax from the Windows applications you're using now. MultiPASS is everything you need next to your PC. Everything.

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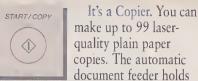
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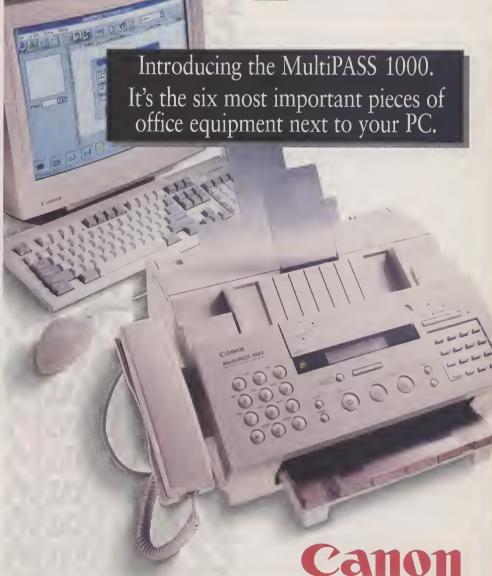
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working at home

TOOLS FOR GETTING THE JOB DONE

Robert Lorinez's home business has taken off, but he isn't about to quit his day job—he's got more than two years to go on his hitch as a U.S. Marine. But while Robert's sta-

views P&D's catalog of trading cards, model planes and other goodies on-line rather than in the traditional brochure, the company saves 80 cents in printing and postage costs. "The Internet's potential is tremendous," declares Sparaco, "I'd have been stupid not to give it a try."

small-business owners is that the Internet's a level playing field. On the Net, "you can't tell if someone is working out of their home office or a building on Madison Avenue in New York," notes Daniel Janal, author of *The Online Marketing Handbook*. "A little company can look just as big as IBM" with a snazzy presentation.

Web and cash flow: small business hits it big on the Net

tioned at Camp Pendleton, Calif., his once-sleepy side business, One-Way Resume, now extends from the halls of Montezuma to the shores of Tripoli. How did this spare-time venture go global? Robert started marketing his services on the Internet's World Wide Web. Within days, inquiries poured in from as far away as France and Australia, and his workload jumped sixfold, to 30 résumés a month.

"When I get home," says Lorinez, who lives off the base, "I usually find about five e-mail requests for my free résumé evaluation service. Out of that, I'll probably get two jobs."

Other home-business owners, too, are getting the message about the Internet's big-time marketing potential. Paul Sparaco operates P&D Collectibles from his kitchen in Middleburgh, N.Y. He received six catalog requests and completed one on-line sale in the first week after his company established a Web site. For every person who

John Holland's no fool, either. The rural California tie-dye T-shirt maker shows his work to a potential 30 million customers by marketing over the Internet, a far cry from the few thousand browsers

who consider his shirts when they stroll by his booth at crafts fairs.

Internet marketing is still in its infancy, but industry analyst Forrester Research predicts the global computer network will bring businesses $4.8 billion in annual sales by 1998. The good news for

As in any promotional plan, making a mark on the Internet depends to a great extent on knowing your audience. If your company offers products or services with appeal to a mass market, it can be an Internet mar-

keting success story; on the other hand, personal service providers with a local clientele—hairstylists, for instance—are probably wasting time and money establishing an Internet presence. It may seem stylish for someone cutting hair in Topeka to pitch his or her services around the world, but what good does it really do the business if the promo-

by john eckhouse

Illustration by David Peters

tion reaches someone in Brisbane? In these cases, a Yellow Pages ad might be less chic, but it's likely to be more efficient.
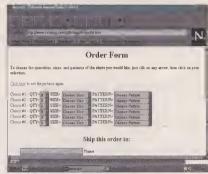
However, if you're selling products that people regularly order by mail, such as clothing or computer accessories, you've got a good chance to succeed. So do service providers whose skills require no face-to-face contact with customers, such as résumé writers and word-processing specialists.

Catch clients on the Web

Most Internet marketing efforts focus on the World Wide Web, because of its multimedia capabilities and "hyperlinks." Shoppers who visit your Web site (which is stored on a computer, called a Web server, that hooks into the Internet) can see your "pages," which may have text, graphics, photos, movies and audio clips that you make available. A simple click on a

hyperlink—an underlined, color-coded word or phrase—whisks the viewer from one Web page to another, either within your site or at a site anywhere in the world that you think visitors to your page might like to know about.

To give your business a Web presence, start by creating a "home page." Here, you can give customers your direct pitch about your products or services, a catalog with photos, a price list, your e-mail address and any other helpful information. Use the hypertext links to guide customers through your site; Paul Sparaco, for instance, offers visitors 10 links, including a chance to examine his catalog's Featured Item of the Month in color. You can also tip off visitors to pages that relate to their interests—and perhaps have the people who maintain those pages reciprocate by adding a link that lets their visitors check out your wares. The

You can customize a Web page so it's made to order for your needs.

One-Way Resume home page connects to about 30 Web sites that Robert Lorincz bets job hunters will find helpful, and that can generate good will—and more business—for his service. All you need to know to link to another page is its Internet address, or URL (Uniform Resource Locator).

Many people have discovered it's possible to create a basic Web

The new trading posts: advertising in on-line classifieds

Even if you're not ready to launch your own home page on the Internet's World Wide Web, there's more than one way to market your business in cyberspace. Most of the commercial on-line services, as well as some Internet newsgroups, invite members to post free or inexpensive classified ads.

• **America Online:** Classifieds Online (Keyword: classifieds) is AOL's busiest messaging area, with more than 125,000 new ads posted each month. It costs nothing to list an ad, which helps keep the action as chaotic as the busiest flea market—the merchandise changes nearly every day.

• **CompuServe:** Listing your ad in the Classifieds area (Go Classifieds) for a week costs $1 per 65-character line of text; there's a two-line minimum.

• **eWorld:** The Macintosh-only service's free Classifieds section (Shortcut: classifieds) boasts a handy search service that lets customers zero in on specific products by name, price or geographic location, instead of combing aimlessly through subject folders.

• **Genie:** Posting an ad in the classified area (Keyword: ads or page 740) for seven days costs 10 cents per 80-character line; a 14-day ad costs 15 cents per line.

• **Prodigy:** You'll pay $10 to post a page (seven lines at 40 characters each) in the Classifieds section (Jump: classifieds) for 30 days. Each additional page costs $1; your ad can be up to six pages long.

• **The Internet:** Some newsgroups permit members to post classified ads—in fact, that's the sole purpose of groups such as *ca.forsale, misc.forsale.computers.memory, misc.forsale.computers.modems* and *misc.forsale.non-computer.* —*J.E.*

You could read the complete reports by two independent labs on their tests of the leading V.34 modems.

home page on their own. (Check *HomePC* in the coming months for a step-by-step guide.) However, hiring a consultant to do it for you is an attractive option; it will cost some money, but it may save you time and effort, and could result in a better-looking and more effective marketing tool. Some consultants charge $1,000 or more to design, create and install a Web page, but steady competition is driving down the fees. (Our search on the Internet located more than 430 consultants and companies offering home-page design services.)

For example, Wayne Gonyea, a

The Web's links give small businesses the muscle of a virtual chain.

Web consultant in Plattsburgh, N.Y., designed his first Web sites for free to publicize his company, OnLine Solutions. He charged the next dozen customers $25 a month, and only recently increased

5 do's and don'ts of Net marketing

What makes an Internet marketing effort pay off? Here are three tips to get your on-line promo rolling, and two tactics to avoid.

• *Promote your home page.* If you don't let people know you have a home page, it's no more valuable than a billboard on a deserted highway. Link it to other pages, which in turn can link to you, and get listings in Internet directories, such as Yahoo.

• *Keep it fresh.* Too many small-business owners think that once they build a Web site, their work is done. But to keep potential customers coming back, you need to update your Web pages with fresh material, just as retailers regularly change their window displays. If you work with a Web consultant, find out if your negotiated fees cover regular updates.

• *Learn Netiquette.* When you locate an Internet newsgroup that relates to your business, read the messages for a week or so before posting responses

yourself, so you get a sense of how the group conducts itself. Find the FAQ (frequently asked questions) file, which explains the basics of how the group operates.

• *Don't solicit within newsgroups, mailing lists or bulletin boards.* If you post an outright pitch for your product, odds are you'll be swamped with vitriolic e-mail from participants who resent commercial promotions intruding on their discussions.

• *Avoid "spamming."* Posting a message in a number of newsgroups at once—regardless of the discussion topic—is called "spamming," after one of *Monty Python's Flying Circus*'s signature skits. For instance, tell *alt.aldus.pagemaker* participants about the PageMaker add-on you've developed; don't bother the folks in waterskiing or backpacking newsgroups with it. —*J.E.*

MODEM TEST RESULTS

OFF THE SHELF, OUT OF
TWO INDEPENDENT LABS PUT

THE THREE CRITICAL TEST PARAMETERS:

COMPATIBILITY

ARE ALL V.34 28.8 MODEMS CREATED EQUAL?

That was the question tackled by two independent testing labs — TeleQuality Associates of Golden, Colorado, and Henderson Communications Laboratories, Inc. of Moreno Valley, California.

While each testing facility used a different methodology and tested different units, both set out to rate the performance of the popular, best-selling external V.34 modems. Compatibility, connect rates, and how often maximum speeds were reached and maintained, were documented. The labs analyzed how effectively each manufacturer engineered its V.34 modems, and how well each one realized the potential of this new technology under real-world conditions.

All units were comparably equipped and the latest version available. To eliminate any bias that might occur when testing between like modems, i.e. Sportster to Sportster, all tests by both labs employed a full compatibility test matrix: every modem was tested with every modem. In order to do well, each modem would have to successfully handle the quirks of all the others in both answer and originate modes.

First, an overview of TeleQuality's procedures:

The connect success rate tests were made with low, medium and high signal levels and incrementally varied noise from low to high. These tests were repeated over both a good (flat attenuation) and a bad (high rolloff 3002) phone line. All modems were pushed to their functional limits with 15 call cycles performed at each signal-to-noise (SNR) point. The percentage of successful connections for each SNR point was measured and graphed for all combinations of modems.

The performance tests were completed with the same types of phone lines, under the same SNR conditions using a highly compressible file transferred in both directions simultaneously. Again, the speed of the error-free data transfer was measured and graphed for all phone line and SNR points on all combinations of modems.

What follows on these two pages is a closer look at the results of the TeleQuality testing. On the back page are highlights of the Henderson test results. *In both tests the bottom line says the same thing: buy a Sportster.*

SPORTSTER OUTPERFORMS THE PACK IN COMPATIBILITY.

In order for modems to interact successfully, and at maximum speeds, each must be capable of assessing and compensating for differences between itself and its counterpart. The ideal modem is sensitive, tolerant and reactive. It identifies connection characteristics and makes the necessary adjustments in order to wring out maximum throughput — regardless of the operational idiosyncrasies of the modem on the other end of the line.

Given the common configuration of two same-brand modems, the ultimate compatibility would be expected when modem "A" is dialed into another modem "A". This study found that was not necessarily the case. In fact, some modems performed better when paired with a more robust competitive modem than when paired with themselves.

PERFORMANCE IMPROVEMENT WHEN PAIRED WITH A SPORTSTER

Connection rate improvement of modems paired with a Sportster compared to modems paired with themselves.

The study revealed that some modems had difficulty connecting to others at optimum speeds. In fact, certain modems showed substandard performance even when connected to themselves.

U.S. Robotics' Sportster displayed the most consistent compatibility with all other modems in the test. *Interestingly, other modems in the study performed better when connected with the Sportster than when connected to themselves.*

his fee to $250 for six months of service, including building, storing and maintaining Web sites, usually on his Made in America! Mini-Mall Web page.

Many of the companies that let customers use the Internet—known as Internet service providers, or ISPs—also offer package deals including home-page authoring and site maintenance services, as well as storage space on a Web server. An ISP employee will design, install and maintain your page, updating it with new product or service information, photos, and price lists that you supply. Some consultants and ISPs will even process credit-card transactions for you (generally for a commission fee). If your business isn't set up to accept credit cards, this added convenience for consumers can increase your sales.

The Internet itself is the best place to find a Web consultant. If you've got World Wide Web ac-

cess, surf around, taking note of home pages you like. Most will list the creator's name at the bottom.

There are a number of things to consider when judging the quality of a Web consultant's work. Effective home pages balance text and attractive graphics. For a hands-on test, click on the interactive links to see if they take you smoothly from page to page.

Check out the consultant's creativity, too—for example, does the text interest you? Robert Lorincz created his own home page, and came up with a bold promise to catch visitors' eyes: The résumé he produces will convince an interviewer to see the applicant within 30 days or he'll redo it at no charge.

To get the best deal, obtain price quotes from at least three sources, and be sure to ask what the price includes. Does it cover updates of information, such as weekly specials? How about building in video clips that demonstrate

Free on-line directories can bring a wave of Net surfers to your Web site.

how your stain remover works?

Posting your page on the Web is one thing; drawing visitors to look at it is another. More than two dozen Web-site directories on the Internet itself list information about new pages for free. Submit It! (*http://submit-it.permalink.com/submit-it/*) and WebPost (*http://www.sme.com/webpost/*) will contact directories on your behalf free of charge if you fill out their forms.

Another way to promote your expertise *and* your venture is to

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post messages in some of the Internet's 10,000 discussion areas, or newsgroups, accessible via Web browsers or newsgroup reader software. Newsgroups generally revolve around specific topics, so hooking up with the right ones can help you hit your target audience; if you sell herbal lotions, for instance, you might take part in newsgroups devoted to holistic remedies or the outdoors. But be tasteful; blatant hucksterism in a newsgroup often invites a barrage of angry e-mail from people who resent the Internet being used for commercial purposes.

Instead, participate in the newsgroup to create a positive image of your business. Be helpful by answering questions people post, for example, and make sure that at the bottom you include a *.sig* file—up to four lines of text that identifies you, with your phone number, postal address, and e-mail and home-page addresses. Include the information on your business cards, letterhead and promotional materials, too; any customers you reach on paper may be tempted to take a look on the Web as well.

No advertising campaign is a sure thing. Still, the Internet offers little risk with its small up-front cost, and it reaches an audience that already stretches into the millions and is growing every day. Be positive—and realistic. If your business makes a big splash on the Internet, do you have the staff and equipment to follow through? You may prefer to start slowly to see what level of on-line activity you attract and can handle comfortably. For instance, T-shirt maker John Holland offers five styles for in-person customers but only two on his Web page. Or, instead of maintaining a Web site, you may prefer simply to place a classified ad in key discussion groups and on commercial on-line services (for a list of on-line ad opportunities, see page 354).

While the Internet promises no marketing miracles, it is a solid tool that rewards creativity over rich marketing budgets. In this age of over-the-top TV hype and ubiquitous late-night infomercials, that's truly an Amazing Discovery. ●

on-line connections

I read the message on my computer screen, but I didn't believe it: I was about to be booted off my on-line service.

Certain that my account with America Online was paid in full, I indignantly called the

How to keep kids' hijinks from hijacking your account

number shown on screen, only to learn my cyberspace privileges had been revoked not because of missed payments, but because of "crimes" traced to the screen name used by my 11-year-old son, Bert.

It was a sobering moment. Parents always struggle with the thin margin between responsibilities that are clearly theirs and those that belong to their children. And maybe this time I'd put a little more on my son's shoulders than he was ready to handle.

"You wouldn't give a teenager keys to the car before you were sure he knew the rules of the road," chided the AOL representative who handled my case. "But that's just what you did with the keys that let your child access the information highway."

Much as I'd prefer not to admit it, she had a point. Naturally, I'd worried about Bert's safety in cyberspace, and I'd issued the standard caveats—never give anyone you meet on-line your name, phone number or home address. But I hadn't thought about the less

serious (and more common) ways kids can find trouble on-line—namely, making it themselves. Pranks like disrupting conversations in chat rooms or using profane language aren't capital crimes. But to keep your kids (and your family's account) in the clear, it pays to think about what antics kids can get up to on-line—and how the commercial services punish infractions—before you find out the hard way.

When our family signed up with America Online, I skimmed the terms of service after they popped up on the screen. I didn't pay much attention to the warning that my

account could be terminated after three violations of the rules—after all, I had every intention of being a good cybercitizen. But since I hadn't discussed those rules and their repercussions with Bert, he more or less shrugged off two warnings about disrupting a chatroom conversation—and he certainly didn't mention them to me. His "third strike" also

by carolyn jabs

Illustration by Patrick C. Merewether

took place in a chat room, when he and a friend mischievously typed in a common obscenity sprinkled with asterisks—they thought they were "fooling" the censors. I hate to break the news to them, but the censors have seen it all before. Although officials from the on-line services downplay the number of children who put their parents' accounts in jeopardy, some of the people who run kids' chat rooms tell me they know of many youngsters who've been locked out of specific forums—or even kicked off services—for acting up.

Ain't misbehavin'?

I had to wonder how many of those kids, like Bert, might have been persuaded to cool it if they'd been given a clear list of do's and don'ts before their parents let them sign on (for tips on what advice to pass along, see "Tell your kids..." on page 372).

The first thing that your children need to understand is that even if they have their very own screen name, it's still your account, and

America Online lets parents impose access limits if kids can't act responsibly.

room, he announces, "The snack bar is open." Other kids can then ask for their favorite cybertreats, which he posts by typing in his food illustrations.

Each menu item in this virtual snack bar occupies just one line on the screen, so it's not considered

nicknamed George Carlin to scan for words the service considers generally offensive in their forums and chat areas. "You can type those words until you're blue in the face, but they won't get through," Ek says. If the program detects an impermissible word, it blocks the

Some kids **amuse** *themselves—and risk penalties—by disrupting chats. 'It is an act of on-line* **vandalism,'** *says a Prodigy official.*

any mischief they make on-line will be traced back to you. Cyberspace feels anonymous, but kids must realize it's not; they're accountable for their actions—and to you.

Ann Peterson, a Northern California mom who has been active in various on-line forums for six years, says she taught her 11-year-old son the ropes by letting him observe her on-line. "He knows that he'd better not disrupt chat rooms or use bad language, because he's heard what I've said about those things when they occurred while we were on-line together," she says.

Ann figures that kids often do outrageous things in cyberspace to get attention, so she's encouraged her son to make himself stand out in more creative ways. For instance, he figured out how to create "drawings" of french fries, hamburgers and hot dogs by using keyboard characters. When he wants to make a splash in a kids' chat

disruptive. But parents will do well to caution their children against "scrolling," an activity I would have regarded as little more than harmless mischief had it not accounted for two of the three strikes against my son. Scrolling means typing characters (most often nonsense or a joke) in the dialog box of a chat room and entering that text again and again so that the phrase fills up the screen, preventing anyone else from getting a word in edgewise; as more extraneous lines are added, the text posted by other participants scrolls off the screen. "You can see how that would disrupt a conversation," says Brian Ek, vice president of public affairs at Prodigy. "It is an act of on-line vandalism."

Another infraction that gets kids into trouble is the use of profanity. Remember stand-up comic George Carlin's list of seven words you can't say on TV? The people at Prodigy do—they use a program

message and sends the user e-mail explaining why the posting won't make it into the public forum.

Occasionally the screening mechanism causes problems. One subscriber trying to explain the finer points of dog breeding in a pet forum received repeated warnings that she had violated on-line standards of decency every time she sent postings including the standard term for a female dog.

Perhaps because so much of what's deemed offensive depends on context, most services choose not to censor specific words automatically. Instead, they expect that members of the on-line community will let them know when language or pictures are objectionable to the community. In most venues, that means messages and images that are seen as racist, sexist or otherwise abusive.

"If someone is offended by what they see on-line, they can send a private message to our standards

adviser," says Jenna Woodul, community building manager for eWorld, Apple's on-line service. "If it's in a chat room, it helps if they actually cut and paste the offending message from the screen."

Laying down the law

All major commercial on-line services agree that repeated demonstrations of obnoxious or disruptive behavior will get you thrown off line. But they differ in what they'll tolerate and the way they'll notify you that your account is in jeopardy. Here's a quick rundown of the policies of the major services.

• America Online says it's very rare for people to lose their accounts for bad behavior, but AOL has a reputation for a strict three-strikes-and-you're-out policy. As I can testify, a parent may not know when a child has accumulated violations, since AOL uses on-screen warnings, which are easy for a child to "forget" to mention.

Make sure your child understands that an AOL warning is like a ticket for running a red light. The difference is that after three strikes, not only will his or her license be lifted, but the family car will be impounded. If you'd like to keep your child out of areas you think might lead to mischief, take advantage of AOL's Parental Controls, which set limits on the areas a child's ID can access.

• CompuServe doesn't have a global standard for on-line behavior. Each of the service's more-than 900 forums is run independently; it's up to the forum manager to decide what constitutes unacceptable conduct. Forum managers usually issue warnings for scrolling or inappropriate language.

"Forum managers can also lock out specific user-ID numbers," notes CompuServe spokeswoman Michelle Moran. "The user will still have access to the rest of the service, but not to that forum." Although CompuServe has terminated memberships for people who've caused trouble in several forums, Moran says the service always investigates before pulling the plug.

CompuServe's monthly invoices, which list the forums accessed dur-

ing the billing period, may give you some insight into where your child's been spending time on-line. If you disapprove of some of his or her hangouts, you can contact the customer-service department and have the youngster's ID locked out of particular areas.

• On eWorld, "if we know we're dealing with kids, we'll usually cut them a little slack," says Woodul. But after three deliberate violations of rules, the account will be cut off—for the rest of the day or indefinitely, depending on the seriousness of the infractions.

• The Microsoft Network might

Tell your kids...

• **Be yourself. Don't pretend to be other people—including your parents—by using their screen names or passwords.**

• **Protect the privacy of your family's on-line account. Never share your password with anyone, either on-line or in person.**

• **Be polite. On-line forum participants won't tolerate language that is obscene, profane, racist or sexist.**

• **No one likes a showoff. Disrupting on-line chats by "scrolling," or filling the screen with irrelevant comments or gibberish, will almost certainly put your on-line privileges in jeopardy.**

• **Don't laugh off a warning. Receiving a violation message from an on-line service is like getting a ticket from a police officer. Tell parents about warnings you've received—even if you think they're unjustified or you're embarrassed.** —*C.J.*

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penalize a deliberate rule-breaker by "spectating" the account, which means the person can then observe on-line forums, but can't participate. In the few months the service had been in business as of press time, only one family had lost an account because of a child who repeatedly challenged a forum's rules.

• As mentioned above, Prodigy's screening software makes it impossible to post the most common profanities and obscenities to a message board. This means not only that kids can't get in trouble for using bad language, but they won't see it, either.

Prodigy uses a tiered system of penalties for people who find other ways to be offensive. If a subscriber enters an objectionable posting on a message board or dis-

eWorld suspends rule-breakers, but kids are often given a second chance.

rupts a chat room, he or she receives e-mail explaining why that behavior is unacceptable.

If the subscriber persists, Prodigy can put a specific ID within an account on read-only status for message boards, or lock the ID out of the chat rooms where people have been offended.

"The warnings and read-only status are like being sent to the penalty box in hockey," says Ek. "If the violations continue, we reserve the right to eject the player by suspending the ID."

If you want your children to "play nice" in cyberspace, it's up to you to make sure they know the rules of the game. Kids and parents—and the entire on-line community—will be better off if we all take the basics of civil electronic discourse seriously. •

Carolyn Jabs managed to get her AOL account reinstated; her e-mail address is carolynhpc@aol.com.

reviews

Panic in the Park: see page 379

★ **Reading the Stars** ★

Each product reviewed in Fun and Games, Lifestyles + Learning, Kid Raves and Gear + Gadgets is rated on a scale of 0 to 4 stars. Before you buy any software, check your computer owner's manual to determine operating system, microprocessor, memory and disk space. Then read the software box or consult a salesperson to be sure the program and your computer are compatible. All prices are suggested or estimated retail.

fun and games

GREAT ESCAPES FOR GROWN-UPS

BY JULIE COHEN

Days of future blast

In the video arcades, BattleTech is more than a game—it's a virtual universe where players sit in claustrophobic consoles and blow each other up. MechWarrior 2, set in the blistering BattleTech world of the year 3057, brings that head-to-head, free-for-all combat action to the PC surprisingly well.

After you decide which of two rival clans you'll play for, you embark on any of 50 missions in your menacing "mech," a human-looking vehicle designed to shield you and flatten your enemies. You'll destroy enemy bases, blast the other mechs in your path and conduct reconnaissance missions that uncover artifacts from other worlds. (Doom fans should keep an eye out for a surprise cameo by a BFG-9000.)

Show your mettle as a warrior and you'll go mech-to-mech with the leader of the rival clan—but qualifying for this final showdown is no picnic. The missions are simple at first, with large targets and somewhat sluggish foes, but the action gets more intense; a warrior has to plan carefully, act quickly and shoot accurately to reach the top.

MechWarrior isn't easy to play right out of the box, with its numbing variety of keyboard commands, but its tutorial section makes learning fun. An overview of the mech's navigation system, weapons, steering and inspection capabilities eases you through a crash course in keyboard gymnastics. Spend an hour in Cadet Training, and you'll be ready for combat.

Oddly, however, the training doesn't prepare you to customize your mech. With its long, weapon-packed arms and powerful legs, your vehicle can be built for speed or set up to carry as much ammo as possible. Your choices are important: If your mech is too slow or too light, or it doesn't have enough artillery, you'll be a sitting duck for opposing mechs.

★★★1/2

Mech-Warrior 2

Futuristic tank combat

The customization can get complicated; you have a choice of 15 chassis, each with several variations, as well as endless options for customizing even those variations—you can change engines, modify the mechs' armor and artillery, or make them jump like Michael Jor-

dan. Configuring battleships is a fairly standard feature in today's combat games, but it adds something special to the challenge and depth in MechWarrior 2.

If you've been lamenting that your computer hasn't delivered the kind of action that's sucked all the quarters from your pocket at the arcade, MechWarrior 2's rollicking ride through the BattleTech universe will deliver the excitement you've been longing for. The depth of play, superior graphics and wide range of options pack this game with 31st-century combat at its full-throttle finest.

$59.95 (DOS, DOS CD-ROM) from Activision, (800) 477-3650, (310) 473-9200. Circle #463

Dirty deeds at the amusement park

Hey, Buddy! P'ssst! Over here! Wanna try your luck at Shufflepuck? Maybe some Gopher Gong to get you going? Everyone's a winner!

Actually, everyone's a huckster at Skyview, an amusement park crawling with underground carnival life after dark. It's the intriguing setting for Panic in the Park,

Mad mechs: If you're going to prove your mettle in MechWarrior 2, you'll need one of these.

which features an interactive mystery that's actually a bit of a digital sideshow when compared with the program's other charms.

You find Skyview on its last legs after the death of its owner. It's due to be torn down, pending resolution of a battle over the property between the operator's twin daughters, Jamie and Janie (both played by *Baywatch*'s bodacious Erika Eleniak). To save the park, you have to find the deed of ownership. On the hunt, you'll meet some of the strangest losers who've ever worked a midway. These characters—who appear on the screen in full-motion, full-screen video segments dressed in bumble-bee costumes, motorcycle gear, sleazy '40s mob attire and other odd getups—can guide you to the deed.

Before they share their secrets with you, though, you'll have to beat them at their own games: 12 penny-arcade-style romps that *almost* feel like the classics, including Skee Ball, Whack-a-Mole and Tiddlywinks.

★★★ 1/2

Panic in the Park

Mystery, arcade

Beat the carnies, and they'll give you respect, information and valuable extra tokens. Lose, and you'll get nothing but lip and a cold shoulder. Keep your eyes and ears open as you walk the grounds, too. The clues you find along the way will come in handy.

Unlike the puzzles in many computer adventures, Panic in the Park's challenges require more mouse dexterity than mental skill. To play Skee Ball, for example,

fun and games

you'll have to master the technique of dragging the mouse back and pushing it forward to release the ball. A flick of the wrist and a little finesse can help you hit the 100-point target every time. Sidewinder, which asks you to guide a ball through a maze without rolling it into any of the moving board's holes, requires just the slightest tilt.

Once you conquer the games of skill, the mystery takes center stage. You'll comb the park's of-
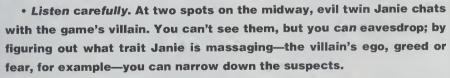
Stuck at a midway point? Take 5 tips for Panic in the Park

The shills that line the midway won't help you win much of anything in Panic in the Park, but you can trust *us*—we've got inside information. (Fair warning: If you'd rather figure it all out for yourself, stop reading now.)

• *Everyone really* is *a winner.* Even if you're hopelessly uncoordinated, you can get past an arcade game anytime. Just hit Ctrl-W to bypass a particular skill game. You can always return later to play the games for fun.

• *Listen carefully.* At two spots on the midway, evil twin Janie chats with the game's villain. You can't see them, but you *can* eavesdrop; by figuring out what trait Janie is massaging—the villain's ego, greed or fear, for example—you can narrow down the suspects.

• *Protect your tokens.* The park is dangerous after dark. Store your tokens in one of the security lockers found on each concourse; it could keep you from losing everything to a mugger.

• *Take a tip from Fred Astaire.* Or at least pay attention to the billboards for dance lessons. They contain a valuable hint to help you solve the staircase puzzle that leads you to the Oracle's chamber. If you have two left feet, pick up the sheet of paper at the foot of the stairs for an equally effective clue.

• *Remember key words.* To enter the Oracle's chamber, you'll have to solve a word puzzle. The puzzle is simple, but the word is significant. Remember it. —*J.C.*

What kind of parent lets their kid play with the Power Rangers hours at a time?

The smart kind.

Your kids are about to discover a whole new way of learning with Saban's **"PowerActive Learning"** CD-ROM programs. The Power Rangers™ are experts at getting children's attention, which makes them ideal characters to bring fun, power and excitement to interactive software. With our range of *edutainment* CD-ROMs, your kids will learn - and have a great time doing it. So when it comes to your children, why not play it smart?

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One disc fits all

Remember the VCR war of the early '80s? You do if you bought a Betamax, then watched how quickly your superior technology became obsolete. The chances of a similar battle on the multimedia front seem

thankfully slim now that Sony, Philips Electronics, Time Warner and Toshiba America agreed this fall to a common standard for digital "videodisk" technology. The new disk, which is about the same size as today's five-inch compact disc, is designed to hold digital video, audio and computer data.

One videodisk will have roughly 4.7 gigabytes of data capacity per layer (dwarfing the current 650-megabyte standard for CD-ROMs), which will enable it to hold video-heavy software programs, more music than today's CDs, and full-length movies.

Current CD-ROMs and audio CDs will work in the forthcoming videodisk players, which should be in stores by the end of 1996, selling for around $500. Analysts expect the players eventually to replace CD-ROM drives, audio CD players and VCRs.

But don't throw out your old equipment just yet; you won't be able to record on a videodisk at first, and using the machines with existing stereos or TVs will likely require additional hardware—not to mention that you'll have to do all your listening/viewing/playing in one room. —*Keith Kirkpatrick*

fices for clues about the deed's whereabouts and why it was taken. If you pay attention to these hints, as well as others strewn about the midway, you'll soon find the deed and the do-no-gooder.

With about a dozen potential outcomes, the mystery has some staying power, but it almost seems like an afterthought compared with the more challenging arcade action and kitschy carnival activities that give Panic in the Park its pizzazz. Like the real thing, they require steady hands and excellent aim; unlike the real thing, they're not fixed.

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from WarnerActive, (800) 693-3253, (818) 841-0737. Circle #464

Take me into the ballgame

If you hanker for peanuts and Cracker Jack during the long winter months, you'll quickly warm up to All-Star Baseball. With its vast store of video clips and top-notch announcers Al Michaels and Tim McCarver, this game is like a TV broadcast spiced with interactive elements.

All-Star Baseball is the first PC ballgame to use video of major-leaguers in action. You create the lineup, then cue each move for either the National or American League. Each side has 18 of the game's finest on its roster: pitcher David Cone and shortstop Cal Ripken Jr. make the show for the AL, for instance, while catcher Mike Piazza and outfielder Moises Alou take the field for the NL.

A unique catcher's-eye view puts the focus squarely on the pitcher-batter confrontation: When your team is at the plate, your mouse controls the type, placement and timing of each swing; in the field, you determine the pitch (fastball, curveball or offspeed pitch) and its

location (high and inside, low outside corner, or right down the middle). Once you set the pitch or the swing, sit back and watch the video footage of the play; it's this element that makes it feel so much like you're watching the game on TV.

Michaels and McCarver add to the realism with context-sensitive play-by-play coverage. Michaels announces each play, while McCarver provides his running commentary for each of the players. If you listen closely, you can pick up hints on how to read a batter or anticipate a pitcher's strategy.

All-Star Baseball might strike out with rotisserie-ball players and stat freaks. The 18 players on each side must all have no-trade contracts (you can't change your squad), and there are no lifelike variables (it's always sunny, and no player ever gets hurt). But the program's straight-ahead approach and seamless use of video make All-Star Baseball a standout in a league of by-the-numbers, stat-heavy copycats.

$59.99 (DOS CD-ROM, Macintosh CD-ROM), from Accolade, (800) 245-7744, (408) 985-1700. Circle #465

Windows 95 mph

The first auto-racing game for Windows 95 is indeed one of the fastest motor-sports simulations on the shelves—as well as one of the most simplistic. The action in Al Unser Jr. Arcade Racing pumps pure adrenaline, with none of the usual delays—like cut scenes that try to tell an irrelevant story—that often mar PC racing; there's nary a pit stop in the game. If only

Fill These.

"The game is smart enough to let you decide your own fate in a multi-tiered storyline–and sinister enough to make you come back for more."
—Newsweek

"Dust is a fantastic game that will redefine what you think of CD-ROM adventures."
—CD-ROM Today

One of Fall's Finest
—Playboy

"CyberFlix has created a true interactive game that successfully marries cinematic excellence with uncompromising depth of play. A must buy!"
—Inside Mac Games

"Dust takes a bold step toward a new era of highly interactive virtual worlds."
—Electronic Entertainment

"Doubles or triples the gameplay [of] many three- and four-CD opuses."
—Next Generation

DUST
A TALE OF THE WIRED WEST ™

Practice your aim. Sharpen your wits. Dig in your spurs. You're in Diamondback, where trouble's brewin' like bad coffee. It's going to take someone who can draw fast and think faster to keep the peace among 40 of the most interactive characters ever assembled on one CD-ROM. Fools, grifters, heroes, and cynics—everyone's got a story to share. And a secret to hide.

Dust: A Tale of the Wired West is a digital adventure with a novel take on the classic Western—a fresh, funny, first-person interactive saga. Outstanding 3D graphics and sound plus a clean and simple interface pull you into the boisterous frontier world of 1882 New Mexico. Shoot-outs and arcade-style action, games of poker, blackjack, and checkers, and a host of challenging mysteries are woven throughout a compelling story that will make for hours of entertainment. Discover Dust and how the West was fun.

A CD-ROM Adventure for Macintosh & Windows.
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GTE Entertainment

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CIRCLE READER SERVICE NUMBER 19

there were more fuel for thought.

It appears the only thing Indy 500 champ Al Unser Jr. lent this program was his name and the

photo that appears when you slip the disc into the drive to launch the game automatically (thanks to Windows 95). After that, it's you against nine digital drivers on 15 fantasy tracks. You can use a mouse, keyboard or joystick to control your steering wheel, but be warned: The other drivers fly around the courses. Practice making your turns if you want to take the checkered flag while any competitor is still out on the course.

At least you don't have to worry about tweaking your ride. You can choose any of 10 vehicles—each with different ads on their sides—but unlike many racing games, you'll take each one as it comes. Remember: The point is to zip around the tracks, not to learn how to survive on a real course.

Indeed, what's most impressive about the program is its sheer

★ ★ 1/2

Al Unser Jr. Arcade Racing

Auto racing

speed under the nascent Windows 95 operating system; the view of the course from the driver's seat is bound to send your heartbeat racing. The graphics are fine, too, with people lining the track, cities rising up over the landscape, and plenty of road and scenery detail.

The speed and video quality of Al Unser Jr. Arcade Racing proves Windows 95's performance potential; the program offers arcade fans blazingly fast fun.

$40 (Windows 95 CD-ROM) from Mindscape, (800) 234-3088, (415) 897-9900. Circle #466

A tension getter

An arsenal of heavy ammunition isn't the only way to get an adrenaline rush at the PC. Sometimes a simple puzzle game can do the trick. In Under Pressure, there aren't any guns, complicated story lines or three-dimensional monsters to chase. A clock and a shifting series of tiled grids are all it takes to set your blood to boiling.

The game gives you mere seconds to maneuver your triangle-, circle-, square- and star-shaped tiles into the appropriate "energy tanks" along the perimeter of the irregularly styled game board. It may sound easy, but the time limit and the mouse maneuvers it

★ ★ ★

Under Pressure

Timed puzzles

requires make for frenetically frustrating fun. Moving a piece into the right position risks ruining the strategic placement of the other pieces on the board. And though some time limits are moderately charitable, others are shockingly short, even at the early levels; some "easy" puzzles give you just 17 seconds to solve them; none gives you more than 90.

A level-7 puzzle (there are 60 levels in all) sent me back to

Alien role? It came from cyberspace

Ever wonder what it's like to play a role in an interactive game before *it hits PC screens? Aspiring actor John Walsh found out when he was cast as an alien in a CD-ROM adventure. Here's his report.*

What separates me from 10,000 other hot-tub Johnnies combing *Backstage* for acting roles? My AOL membership. The day I subscribed, I found the Casting

Forum (Keyword: casting). After just a few on-line chats, I landed the role of an alien explorer in a CD-ROM production called The Armageddon Device. I was perfect for the role, the director told me. Was it my brooding, Chekovian intensity? My Shakespeare training? "We need someone tall," he said.

The following Sunday, I was tramping through a sandy pit in elaborate—and hot—prosthetic makeup.

"What kind of alien am I?" I asked. "What sort of childhood did I have?"

"You had an *alien* childhood," I was told. "Now wave to your little robot friend...the one you can't see because we're going to animate him in later."

I soon resumed my human guise with spirit-gum remover and skilled professional help. "Try taking this off yourself and you'll rip the skin right off your face," one makeup artist told me cheerfully. Luckily, I kept my skin. Too bad my character didn't—he gets vaporized in the first two minutes of gameplay.

GRUNT, JUMP AND BELLY BUMP!

The most radical game on the PC is about to kick your butt! It's Arcade America, the only CD-ROM game that truly separates the tough guys from the mondo weenies. Get One! (now) Satisfaction Guaranteed*

TM

7th LEVEL.

ARCADE AMERICA

square one about two dozen times before I got it right. Angst-ridden and antsy, I decided it was time to take a break when I found myself making careless clicks with my mouse as I tried desperately to line up the arrows. Nevertheless, I returned to finish the level (after about six more tries) half an hour later, then quickly whipped through three more levels before hitting the next super-stumper.

As in many games, power-ups and obstacles arise as the levels get more complicated. Walls and spinning stoppers block your passage; ignoring a bomb or hitting the board's edge ends your turn with a bang. Transporters, chargers, shape mutators, and "life" and "time" bonuses will help you out, but you'll still have to plot every move deliberately; each wasted click makes your mouse feel like a panic button.

Under Pressure packs plenty of heat; your sternest test may be keeping your cool under fire.

$29.95 (Windows 95 CD-ROM) from Starhill Productions, (800) 304-4263, (415) 442-5000. Circle #467

Stop gun

Dagger's *Rage*? Ennui is more like it. In an age of ever-more-dazzling three-dimensional space-combat games that make you a feel like a top gun, watching your tiny airplane scoot around a big screen while you shoot other tiny planes is about as dull as gaming gets.

As Kurt "Dagger" Kaso, you pose as a Mercy Pilot entrusted

★ Dagger's Rage
Air adventure, combat

to infiltrate the shadowy Pogodyne Corp. and determine if the enormous conglomerate is responsible for pirate raids that have decimated all the other companies in the United Planets. You shoot down the pirates in a variety of missions—some challenging, some not.

fun and games

In fact, the biggest challenge is finding any drama in the program. You can choose from four fighter planes and a dozen weapons, but the odd bird's-eye view of the action makes the program feel more like a board game than a shoot-'em-up, and long delays while each mission loads kill any potential momentum.

The segments between missions stall the gameplay even further. "Movie" footage pops up, shot using special tools that give the
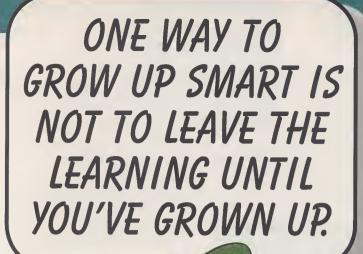
characters a 3-D look—but the artsy graphics just don't work; lip-synching is annoyingly off-kilter, and the characters move in agonizingly slow motion. Dagger's whisker stubble is probably intended to make him appear rough-and-tumble, but it looks more like he met a toddler who took a crayon to his face. If you play this game, you may have to fight the urge to reach for the Crayolas yourself.

$49.95 (Windows CD-ROM) from Microforum, (800) 465-2323, (416) 656-6406. Circle #468

Nintendo '94 just won't cut it in a Windows 95 world

Talk about taking a step back in time. Originally released in 1994 for Super Nintendo, MegaMan X is still a simplistic sidescroller—the background moves from right to left as your

character moves from left to right, creating the illusion that the character is moving forward.

In this PC-game adaptation, MegaMan (who looks a little like the old cartoon character Speed Racer in a Smurf costume) must wipe out eight Maverick Hunters, who busy themselves by slaughtering humans and plotting to take over the world. Then you go one-on-one with their leader, a brute named Sigma.

You guide MegaMan across a futuristic, two-dimensional world; he jumps, runs and shoots, while robots and other scary machines try to zap the life out of him. Every time you make a kill, you gather up your victim's weapons and advance a level.

But never mind all that; the game boils down to pounding six keys: the left and right cursors for running, the Ctrl key for extra speed, the Alt key for jumping, the spacebar for shooting, and the tab key to rifle through the eight weapons MegaMan can use on his way.

Kids who haven't yet been jaded by the latest 64-bit set-top game boxes—like Jaguar, or Sony's Playstation—might enjoy this PC program, but the blocky (albeit colorful) DOS graphics make the

game look and feel more like shareware than today's slicker commercial releases. And the gameplay—which bumps you back to the beginning or midpoint of

fun and games

each level whenever the maniacal mavericks manage to zap you—is bound to alienate all but the most devoted Nintendo fans.

$39.99 (DOS CD-ROM) from Capcom, (408) 774-0400. Circle #469

Tell Roger Wilco he's over and out

Space Quest 6: The Spinal Frontier pays weird homage to sci-fi films, with knowing references to movies such as *Innerspace* and *Star Wars*. But the humor is lost in the tedium of the search for stellar stuff and the time spent figuring out what to do with your booty.

The sixth installment of the Space Quest series finds hero Roger Wilco, space janitor, quite literally

WE'VE CREATED SOMETHING FOR WINDOWS 95
THAT'LL MAKE YOU WORK LESS EFFICIENTLY.

Your "In Box" is piled so high it's been declared a fire hazard. Who cares? With Shockwave™ Assault, the first ground-level action shooter native for Windows® 95, you're busy saving the earth. Las Vegas. Hollywood. London. Egypt. And other real-world locations are at risk of being swallowed by hostile alien forces. Luckily, Shockwave Assault is fully auto play. So you just load the CD and go. Blast away with arcade-style graphics and action. It's your job to save the world. Which beats the hell out of whatever you do now.

SHOCKWAVE A S S A U L T

Check out the action at *http://www.ea.com/eastudios.html*

CIRCLE READER SERVICE NUMBER 30

Space Quest 6: The Spinal Frontier

Action, satire

stripped of his rank as a Star-Con Federation captain and re-assigned to swab the decks on the SCS Deepship 86. The adventure begins in outer space but ends up deep in the bloodstream of Corpsman Stellar Santiago. Once Roger gets under Stellar's skin, he must travel over gall bladder and through pancreas to defeat the evil Shar-pei, who has invaded the same poor fellow.

You have to plod through about half the game to reach this new frontier—and that can be painfully

fun and games

slow going. If you're still following the story after you land on Polysorbate LX, a slumlike planet where you run into the likes of E.T. and Jebba the Hop, you'll eventually shrink to microscopic dimensions and begin your true mission.

Try as it might, The Spinal Frontier consistently misses the mark. In one scene, for instance, Roger challenges an alien to a game of "Stooge Fighter 3," which puts Larry, Moe and Curly in a Street Fighter arcade setting: They throw pies, tweak noses and poke each other's eyes. But the game is canned; no matter what you do, you can't win the first round and you can't lose the second.

Unless you can't get enough of the Space Quest series, Roger Wilco may just get under *your* skin.

$49.95 (DOS CD-ROM, Windows CD-ROM) from Sierra On-Line, (800) 757-7707, (206) 649-9800. Circle #470 ●

Sirens, radios, METAL DETECTORS, *burglar alarms,* intercoms.

(And 20 more fun-filled reasons to get the first interactive CD-ROM that lets kids build and play with all the cool electronics they create on screen.)

Kids first pop in the CD-ROM for a step-by-step journey through the basic principles of electricity and a how-to on 25 projects. School should be this much fun!

This is the workbench. The real lab version of what kids see in 3-D on screen. Other interactive CDs don't have one. Bummer.

These are the components kids use to build their projects. (Marconi may have invented the radio. Bet he never had this much fun putting it together.)

Wouldn't it be a ton more fun if kids could actually build and play with electronic gadgets instead of just settling for images on a screen?

Welcome to *Cybercrafts Fun With Electronics.* The first CD-ROM where virtual reality and hands-on reality come together.

Why is *Cybercrafts Fun With Electronics* more fun? Because it gives kids more ways to have fun. While they make stuff they can actually use!

For starters, there's a cast of wacky characters that take kids through the ins and outs of the on-screen workbench where they'll learn about what makes electricity crackle: conductors, capacitors, transistors, diodes, terminals. The works.

Next, kids move to a real hands-on workbench. Plus a parts department that lets them build and play with 25 amazing projects in all.

Cybercrafts Fun With Electronics. It starts where other CD-ROMs leave off.

FUN WITH ELECTRONICS

MAC & PC CD-ROM

PHILIPS

lifestyles +
THE PC WAY
learning

BY SHARLENE JOHNSON AND CHARLES BOWEN

Julia Child's digital kitchen: 16 chefs dish out generous helpings

When Julia Child speaks, food lovers listen. Indeed, as soon as that unmistakable voice welcomes us to her new CD-ROM, Home Cooking with Master Chefs, she's got our attention. And, happy to say, her first software menu doesn't disappoint. With 16 top American chefs joining in, PBS's gourmet guru serves up a cooking guide of excellent taste.

From the first mouth-watering color photos, you can tell this presentation's going to have all the trimmings—there's not a plain white window in sight. The recipes include a few down-home favorites, such as Old-fashioned Mashed Potatoes, but most of the 100 or so entrées, side dishes and desserts are clearly meant for special occasions; unless you have the energy to tackle Shrimp Étouffée or Seared Venison with Pinot Noir and Cherries before the evening news, this isn't the program to consult for everyday family dinner suggestions.

Yet, fancy fare aside, the style is pleasantly down-to-earth. Complex dishes are explained with narrated video or slide shows, and the real meat of the program—a treasure trove of tips and techniques—will come in handy for even the most casual cook; every section contains useful, practical information.

For instance, you might think the photos and biographies in the Chefs area would be little more than self-promotion for America's cooking elite, but they offer practical advice that resonates with the voice of experience. When Susan Feniger, co-owner of the Border Grill in Santa Monica, Calif., explains how she squeezes citrus fruits without a juicer, her clever, simple technique shows that in the kitchen, ingenuity can be just as valuable as fad gadgetry.

★★★★

Julia Child: Home Cooking with Master Chefs

Cooking

In each recipe, you'll see terms, utensil names and ingredients highlighted in red; click on them to call up a photo and background information—handy if you've never heard of, say, a "degreasing pitcher" (sometimes called a gravy separator, it's a plastic or glass cup with a long spout that pours only from the lower liquid layer, leaving the fat untouched at the top.). Similarly, small red T's sprinkled throughout the recipes are keyed to additional juicy tidbits of information.

The one disappointment here is that there's little footage of Child in action—the "tours" of Julia's Kitchen rely on clickable photos of various kitchen and pantry items, with just a sprinkling of video. Still, this section, too, is stocked with information, including a list of the cooking utensils Child considers indispensable, and tips on selecting the freshest ingredients, sharpening knives and serving wine.

Of course, not even Julia Child can prepare a chef to make gourmet meals overnight. So come back for seconds—and linger for hours. You'll savor every byte. —*S.J.*

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Microsoft, (800) 426-9400, (206) 882-8080. Circle #471

The gridiron age

You think quarterbacks take a lot of shots on the football field? Consider photographers: From the earliest days of the pro game in the 1920s, they've

Who says too many cooks spoil the broth? Julia and friends fill a software menu from soup to nuts.

captured all the passes, runs and tackles on film. 75 Seasons: The History of the NFL takes those action-packed photos, adds in statistics galore and hands it all off to fans on one winning disc.

★★★1/2

75 Seasons: The History of the NFL

Football

The program kicks off with black-and-white, grainy newsreel films from the 1920s and '30s, then traces the league's development right up to today's stunning full-color, slow-motion television footage. All the legends of the game appear in text, audio and

more than an hour of narrated video, along with the records of teams and players. The names mean almost as much to our cultural history as they do to the sport itself: Joe Namath, Jim Brown, Joe Montana—and, yes, O.J. Simpson.

The program's history lessons are solid: Starting with the roots of

the NFL (which began as the American Professional Football Association in the early '20s), the disc covers every team to compete in the league, observations about coaching innovations over seven-and-a-half decades, rules changes, the public's growing fascination with the sport, and the impact of television on its boom.

But the program scores best with its wonderful video library of football's greatest moments. Over and over, you can watch Tom Dempsey kick the longest field goal

in NFL history (63 yards) or see Walter Payton break the all-time record for rushing yardage.

If you're a die-hard football fan, this disc is a natural; if you just want to be able to communicate with someone who is, it does a coaching job that would make Don Shula proud. —*C.B.*

$34.95 (Windows CD-ROM, Macintosh CD-ROM) from RealTime Sports, (800) 554-4420, (212) 395-9800. Circle #472

Take a rain check? It depends on you...

From identifying cirrus clouds to predicting tornadoes, the Everything Weather CD-ROM from The Weather Channel offers a fine climate for learning about stormy weather.

Meteorological mavens know that when it rains, most of us prefer to be on the inside looking out, so the disc's homey design protects users from nasty elements. It offers easy access to

★★1/2

Everything Weather

Science

Playing Dom?

A Julia Child cooking CD-ROM makes sense, but Dom De-Luise? If you ques-

tion the value of Cooking With Dom DeLuise—Fun, Fast & Healthy, just take his pal Burt Reynolds' word for it: "[Dom's] recipes are fantastic. [He] is Julia Child in drag."

The outlook in Everything Weather is warm and sunny, but there's always a chance of storms.

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each section, including U.S. and Global Climate Data books, a Help Manual and a magnifying glass to start a search.

Although the window shows blue skies "outside," tornadoes, thunderstorms, hurricanes and winter storms rage inside a snow globe on your desktop; buttons on its base call up detailed information on each type of storm. The sections are interesting, if not terribly useful. Photos, text and videos offer insight for the curious, including footage of some of history's most vicious storms. The impact is somewhat clouded, though, because you can't see photos and read text at the same time, and the disc's video clips are plagued by poor visibility.

The interactive activities, such as the Name That Cloud game, won't challenge Doom for thrills. And while a Forecast Connection lets you download current condi-

tions and forecasts for 200 cities world- wide at 75 cents per call, don't expect much detail: A typi- cal report includes high and low temperatures and a general state- ment such as "Partly cloudy." Your local paper could probably tell you that. —S.J.

$50 (Windows CD-ROM, Macintosh CD-ROM due next month) from The Weather Channel, (800) 633-2222, (404) 801-2102. Circle #473

Scanning English with a define-tooth comb
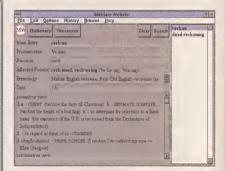
Today's kids may grow up be- lieving that a dictionary is nothing more than the spell- checker in their word processor. As this delightful CD-ROM shows, a

dictionary can be much richer than that, with defini- tions, histories and derivations, pronun- ciations, grammatical forms, and syntactical and idiomatic clues.

True, there's little flash in this disc; it forgoes videos, sound clips

and colorful graphics for solid infor- mation—and plenty of it. Merriam- Webster's Colle- giate Dictionary and Collegiate Thesaurus (both contained on a single CD-ROM) pack more than 160,000 entries, plus 130,000 an- tonyms, synon- yms, idioms, re- lated words and comparisons of usage. A utility called M-W Link even lets you check on words in other Windows applications.

★ ★★★ 1/2
Merriam-Webster's Collegiate Dictionary and Collegiate Thesaurus
Reference, writing

The software enables fast, pow- erful searches if you install it all on your hard drive—but you'll need 28 megabytes of space to do so; as little as 2 MB will let you run the pro- gram from the disc itself. —C.B.

$69.95 (Windows CD-ROM, Mac- intosh CD-ROM) from Merriam- Webster, (800) 201-5029, (413) 734-3134. Circle #474

Catch-as-catch-Kanji

Long winter evenings lend them- selves to study—so what better time to satisfy a yen to learn Japanese? You'll need all the time you can get to master the fundamen- tals of reading and writing this com- plex language. But two new software

Are forecasts all wet? Check the Web

Long before meteorologists put computer power to work in forecasting the weather, *The Old Farmer's Almanac* was watching the skies. The 1996 edition still makes its calls using a "secret formula devised in 1792." The difference now is that readers can use their computers to take advantage of the *Almanac*'s old-fashioned wisdom.

Earlier this year, the *Almanac* launched a page on the Internet's World Wide Web (*http://www.nj. com/weather*), where you'll find a series of two- to five-day forecasts of general conditions such as "Clear, seasonable" or "Rain, cool," for which the

Almanac claims an average accuracy rating of 80 percent. For the days of Oct. 3-6 in the New York area, its prediction of "Sunny, warm" was right on—for Oct. 3; the next two days it rained. (Although the lead page focuses on the Northeast, you can see round-the-clock, hourly updates on the weather in 25 U.S. cities.)

Happily, the interactive section of the *Al- manac* on the Web retains some of the homespun touch that's so identified with its print edition. After all, can you imagine asking the National Weather Service (which is also on-line, at *http://www.nws.noaa.gov/*) how to get rid of bugs in houseplants? ("Push a clove of garlic into the plant's soil," if you're interested.) That was a Question of the Day chosen by the *Almanac* edi- tors—they answer one a day, tackling anything from history to, of course, the weather. —*Steven Korn*
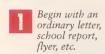
Illustration by Kathryn Adams

This is easy.

Bob hopeless?

Remember Bob, the "hard-working, easy-going software *everyone* will use"? No? Judging by the lack of attention paid to the Microsoft "social interface" in recent months, we can forgive the lapse. After an initial sales burst at the program's launch last March, Bob hasn't exactly made himself at home with many software buyers.

According to PC Data, the software sales-tracking firm in Reston, Va., only about 20,000 copies of Bob were sold in its first five

months. (Microsoft's Encarta sold nearly 85,000 units during the same period.)

But Microsoft claims to be standing by its man. As a bonus, the software now ships with Great Greetings, a program designed to let you send cards and invitations directly from your computer; other add-on lures are also available. Still, when you ask folks at Microsoft headquarters to put on a happy interface, odds are it'll be Windows 95. —*Keith Kirkpatrick*

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programs can at least make it easier for you to get started.

To fully understand the Japanese language, you must first learn the two styles of Kana—written phonetic characters, each representing a syllable. These are covered by the Kana-

kun program. But you'll also need to study Kanji characters, which represent whole words (sometimes several at once); Volume 1 of the Kantaro software, the first in a planned series, covers 200 of the 2,000 or so Kanji characters that are currently in use.

Luckily, learning the software isn't nearly as complicated as learning the language; both programs use a simple, button-driven interface sprinkled with a few pull-down menus.

The first group of Kana lessons explains how to recognize each Kana by its strokes and pronunciation. You'll find a matching game, a flash-card-like section, and Kana Writer, which lets you view a stroke-by-stroke animation of each

---

lifestyles + learning

character, hear it pronounced and then practice drawing it yourself (you'll be better off doing this on paper than trying it with your mouse). The next set of lessons includes several exercises that teach you to form words.

Once you progress to Kantaro (probably a matter of days, not months), you'll find the Discoverer module, in which picture and word mnemonics teach you to quickly recognize and remember basic Kanji definitions.

While the programs do a good job of teaching beginning Japanese, they're also simplistic, with tedious elevator music and silly sound effects. And although the combination of Kana-kun and Kantaro will get you off to a good start, the grammar, etiquette, subtle nuances and complete vocabulary of the language aren't covered here. For that, perhaps you'll have to wait for the sun to rise on another long, cold winter. —*S.J.*

$59, Kana-kun; $129, Kantaro, Vol. 1 (Windows CD-ROM) from Pacific Software Publishing, (800) 232-3989, (206) 562-1224. Circle #475

Parks guide may test your better nature

If it's never too soon to start planning a summer vacation, Tour of USA National Parks, which offers detailed text and a top-notch search feature, can plant some ideas in your head. Unfortunately,

Tour of USA National Parks gives you only an occasional peak at the pretty scenery.

the disc will disappoint anyone expecting visually enticing tours of our majestic national resources.

For those interested in visiting one of the 20 well-known sites covered in the Armchair Visits section, detailed text descriptions are clear, concise and informative,

½

Tour of USA National Parks

Travel

with useful tips and details. You can also conduct searches to find campgrounds all across the United States.

But otherwise, only the barest descriptions will come up for the country's remaining parks, historic sites and national monuments. And while the disc calls itself "multimedia," the small photos rarely convey the subjects' grandeur, and the video clips and audio narration are scant.

The biggest problem, however, isn't so much the superficial content as your route to it. Reading through the text, you see the words "Click here to see picture," "Click here for audio" or "Click here to view video." The result is annoying and tedious, a process that's just no picnic to use. —*S.J.*

$9.99 (Windows CD-ROM) from CDRP, (617) 494-5330. Circle #476

Renaissance man

To remember Leonardo da Vinci only as an artist—even one who created such singular masterpieces as the *Mona Lisa*—is to do a disservice to one of history's greatest thinkers. Intent on blending science and art, Leonardo was a lifelong student of nature who filled his journals with observations, dreams, conjectures and conclusions about the world around him, as well as sketches and notes for scores of mechanical devices. Half a millennium ahead of his time, Leonardo predicted such developments as

the drawbridge, an armored tank and a diving suit.

Certainly, Leonardo would have been fascinated by the CD-ROM, which can store almost as much information as his nimble mind did. Leonardo, the Inventor brings to the screen a variety of sketches from the original journals for a detailed look at nearly two dozen inventions. Some are humorous in

retrospect; for instance, Leonardo believed his "walking buoys" would let a person hike across a body of water. But many are remarkably astute, such as his plans for the para-

chute and the helicopter.

Three-dimensional animation attempts to demonstrate some of the machines Leonardo envisioned in action, but these drawings don't really do them justice. Still, like the master's own work, Leonardo, the Inventor usually has the right idea. —*C.B.*

$49.95 (Windows CD-ROM, Macintosh CD-ROM) from Future Vision Multimedia, (800) 472-8777, (914) 426-0400. Circle #477

Past times, but not much fun

History is a popular topic for CD-ROM publishers, which display a seemingly endless ability to create new discs devoted to old news. Unfortunately, many of their efforts end up delivering more dazzle than depth. Compton's Encyclopedia of American History sets out to right the balance with a huge stockpile of facts. Need the complete text of the Mayflower Compact? It's here. How about the Equal Rights Amendment? Or the Declaration of War on Japan in World War II? The program contains the full text of more than 300 historic documents, and serves up all 32 chapters of McGraw-Hill's college-level text, *American History: A Survey*.
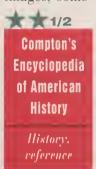
But such encyclopedic entries

exact a price for the viewer. It's one thing to have too much multimedia in a serious reference work; it's another problem altogether to have too little. Granted, the text contains links to more than 3,000 images, some 12 hours of audio and video clips, and 60 historical maps. But it just isn't as flashy as other recent releases from this publisher; the 1996 edition of the Compton's Interactive Encyclopedia, for instance, does a far better job at finding a happy medium between inspiration and information. —*C.B.*

$39.95 (Windows CD-ROM) from Compton's NewMedia, (800) 284-2045, (619) 929-2500. Circle #478 ●

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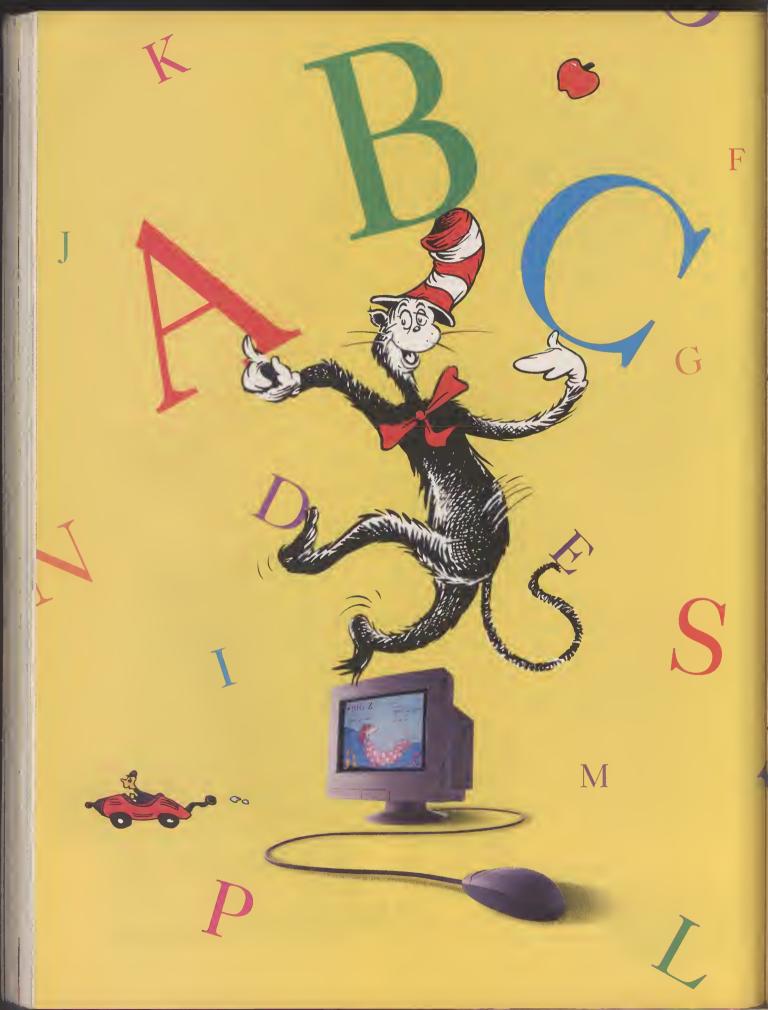
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kid raves

OUR YOUNG EXPERTS RATE SOFTWARE

BY CAROL ELLISON

In interactive games, Sesame Street opens to two-way traffic

T hat's where Bert and Ernie live!" 9-year-old Victoria squealed with delight when her younger brother, Joseph, clicked on the door to drop in on *Sesame Street*'s dynamic duo.

"Jo-Jo, what do you want to play, the radio or the Shape-a-Matic game?" she asked, considering the choice of games offered by their gracious hosts.

"I want to play it by myself," Joseph, 6, insisted.

Not much chance of that. All the young testers in the *HomePC* Kids' Lab eagerly crowded around the mouse and jockeyed for position to get a crack at Sesame Street Letters, one of three new software programs drawing on the characters and techniques that made *Sesame Street* such a landmark in children's television. Letters and Let's Make a Word, sold separately, provide a hearty introduction to letter and word-building skills; the third program, Numbers, introduces kids to counting and simple math.

In Let's Make a Word, kids can invite Big Bird, Oscar the Grouch or one of four other *Sesame Street* pals on a game-show set to go to a "remote" location: a farm, a park, a restaurant or a construction site. When they arrive, the character leads them in letter and sound games full of entertaining surprises.

At the farm, for instance, Big Bird may ask the kids to find something that begins with B; if they click on the barn, a pig races into the silo, then shoots into the air as if he were in a rocket. When players choose a bale of straw, Big Bird reminds them that "Straw begins with the sound *strrr*."

In the Letters and Numbers programs, kids click on the doors of Sesame Street apartments to see what their PC playmates are up to: They'll find a sound and letter game in Snuffalupagus's cave, for instance, and Big Bird itching to join them for a rhyming game.

Joseph chose

to play Shape-a-Matic with Bert and Ernie. He clicked on everything in their house, turning each object into a square, then a triangle, then a circle. After each click, Bert or Ernie announced, "It's shaped like a square!" (or "triangle!" or "circle!"). Amused, Joseph clicked on Bert himself—but before the characters could speak, Joseph announced, "Bert, you're a triangle! Now I'm going to turn you into a square."

"Did you have fun with Bert and Ernie?" the narrator inquired as Joseph clicked the door to leave.
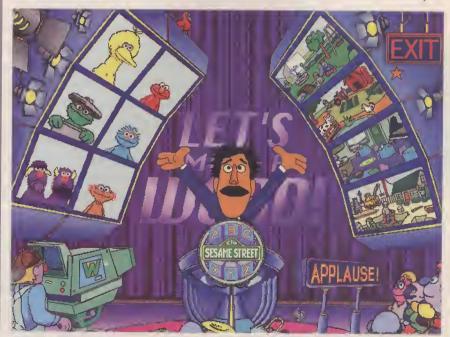
"*Yeaaahhh!*" he exclaimed.

As if anyone really had to ask...

$39.95 (various CD-ROM formats) from Creative Wonders, (800) 245-4525, (415) 572-7S7. Circle #525

Friendly ghost stories

I t's debatable whether Casper: Brainy Book really helps kids build the 1,500-word vocabulary it promises—that's a tall order for any book or software program. And when the disc's puzzles, match game and word game count character names like "Uncle Stinkie" among its vocabulary list, it seems the program's more apt to prepare a child for *Wheel of Fortune* than school.

Still, the kids who played with the Casper disc found it to be spir-

On Let's Make a Word, kids choose a celebrity partner, pick a site and go for valuable surprises.

ited fun. Brainy Book borrows its plot (but no video) from last summer's hit movie *Casper*: Kat and her ghost-chasing father, Dr. Harvey, move into old Whipstaff Manor to determine if it's haunted. It is—by Casper and his three wacky uncles, Stretch, Fatso and Stinkie.

The story unfolds on 12 electronic pages, each of which invites kids into enchanted rooms where columns morph into hourglasses filled with goo, and statues come alive to dance the hula. Whenever one of the uncles floats in, kids can click on him to launch a goofy game.

★★★

Casper: Brainy Book

Ages 4 to 8

Storybook

"*Ooooh*. What was that?" asked Laura, 6, when she clicked on a pillar.

"I don't want to know," replied her sister, Cara, 10. "Some kind of gunk."

Four-year-old Kyle plugged his fingers into his ears when the ghosts appeared, because, he said with a shiver. "I don't want to hear them say '*Boo!*'"

But most of the children in the *HomePC* Kids' Lab made the program a frequent haunt.

"It's my favorite!" declared Rudy, 4, as he returned to Casper for the third time in a row.

"Is it scary?" Laura's mother asked her daughter.

"*Nooooo*," Laura said knowingly. "This is fun!"

$29.95 (Windows CD-ROM, Macintosh CD-ROM) from Knowledge Adventure, (800) 542-4240, (818) 542-4200. Circle #526

Fond memories, but Etch-A-Sketch draws a blank on the PC

Cool. Cool. Cool." That's all 6-year-old Laura could say as she waited to play with Etch-A-Sketch. And indeed, what's cooler than a toy that lets kids coax line drawings seemingly out of nowhere with a couple of twists of the wrist?

There was one big difference for Laura, though: She was waiting

Inside the Kids' Lab: Software that takes the right coarse

Let's face it: From a kid's point of view, adults just don't know what's funny. We grown-ups blush at belches instead of giggling, and we're more likely to clean up gross and slimy spills than appreciate their goofiness. After more than a year of working with dozens of youngsters in the *HomePC* Kids' Lab, we've accepted the obvious: Children are tickled by things we'll never understand.

This month, the kids aped Jay Alexander's shrieky voice in Learn the Art of Magic endlessly—never mind that it sounded like fingernails on a blackboard to any adult within earshot. Goo dripping through an hourglass in Casper: Brainy Book clicked marvelously with kids at the mouse, while snakes drew snickers in Kiyeko and the Lost Night. And players preferred punctuating scripts in Hollywood with noxious noises to periods and commas.

But adults shouldn't dismiss software as frivolous just because it uses broad humor. Such elements often have a serious purpose: to engage kids who would otherwise tune out the lessons at hand. Spontaneous animation and gross sound effects can spell the difference between pretty good software and really *great* software if it keeps kids involved.

Take it from the experts: the kids themselves. We do, and we extend hearty thanks to those who worked—and played—to produce this month's reviews: Gabriel Ayache, Joseph and Victoria Baston, Laura and Cara Forte, Diana Garber, Jennifer Garber, Abbe Goldberg, Benjamin Herman, Alex Hyman, Lauren Mahon, Jason Marder, Kyle Melnick, Janine Ramaden, Lauren Spoto, Rudy Sulamonte, Thomas Volpe and David Wasley. Thanks also to Kids' Lab assistant Karen Garber, teacher Yolanda Callendar, and Ann Erbes, director of CMP Publications' Child Care Center. —*C.E.*

not for the familiar plastic toy, but for the PC version—and unfortunately, Etch-A-Sketch's transition seems a little rough around the edges. The old Etch-A-Sketch works because of its simplicity—but simplicity hinders the multimedia version.

Laura's enthusiasm waned after she'd played the six games offered in the program, each of which is displayed within the familiar Etch-A-Sketch frame and has as many as four variations. Kids can create their own designs, trace coloring book images, draw their way through mazes, and construct buildings and scenes by clicking on the two "knobs" in the bottom corners of the frame. Although the program's got plenty of activities, there's none of the clip art, silly sound effects and magic erasers that kids love in creativity programs.

Some Etch-A-Sketch games are unusually well structured. In a travel game, for instance, players can direct planes and cars to destinations listed on the screen (states, countries and cities) only in a certain order; doing so helps kids learn proper geography.

That said, some of our testers could have used more structure in certain spots. It can take a bit of parental encouragement and supervision to get the kids to use the program productively.

Laura discovered that negotiating the mazes wasn't challenging at all if she just ignored the path and made a beeline to the finish; nothing in the program required her to find her way through the maze. So instead of guiding her vehicle through

kid raves

the labyrinth, she simply cut across the grassy medians. "I win," she declared. "I cheated. Look! I was a cheater!" That's probably not the kind of creativity the inventors of Etch-A-Sketch had in mind.

$29.95 (Windows CD-ROM) from Screen Magic, (415) 648-8056. Circle #527

Jack of all trades, master of none

The box for Jack's House emphasizes the "positive and nurturing, non-violent, aggression-free" content you'll find inside—it is, the manufacturer says, "a game of learning wonder and discovery." And just in case

Learning: 6 TV spin-offs to watch for

Studies show that kids who grow up around computers spend more time at the keyboard than they do in front of the TV. But of course, television continues to influence all their activities, PC included—and that's not necessarily a bad thing. Computer software based on popular TV shows can spur a child's interest in subjects he or she might otherwise ignore; TV shows based on PC programs can make time spent in front of the tube that much more fun—*and* educational.

Scholastic's popular educational series, The Magic School Bus (see page 128 in our "Holiday Gift Guide"), invites young computer users to join zany teacher Ms. Frizzle and her students for exciting on-screen adventures. The *Sesame Street* gang inhabits a number of fun, fact-filled software programs (the latest of which are reviewed on page 411). And The Discovery Channel's hit series about everyone's favorite masticating marine predators, *Shark Week*, is dipping into the PC software waters with Sharks! An Interactive Journey ($49.95, various CD-ROM formats, from The Discovery Channel, 800-762-2189). All three programs let children explore and learn about topics that interest and excite them in a familiar environment.

Now, with the boom in multimedia software, the PC is influencing television, too. Broderbund Software's venerable Carmen Sandiego was one of the first PC programs to be spun off into TV shows. This fall, two new software characters, Hyperman (The Adventures of Hyperman, $39.95, Windows CD-ROM, from IBM Multimedia Publishing Studio, 800-898-8842) and Madeline (Madeline and the Magnificent Puppet Show, $39.95, Windows CD-ROM, Macintosh CD-ROM, from Creative Wonders, 800-543-9778) starred in interactive CD-ROMs just as their shows premiered on Saturday-morning TV.

Steve Bennett is co-author of Kick the TV Habit: 365 TV-Free Activities You Can Do With Your Child.

you didn't get the point, instead of using its "Read Me" file to warn you of the technical glitches you might find inside, which most such files do, the publisher of Jack's House takes the opportunity to once again declare how dedicated it is to producing a wholesome program for kids—something that literally goes without saying for most every preschool software publisher around.

Thus assured of the program's good intentions, we meet Jack, a lovable boy who invites players to look around his house. Each of its

rooms, and its backyard and garden, holds activities such as drying a duck, dressing paper dolls, counting stars and planets, coloring and playing with the alphabet book.

★★

Jack's House

Ages 2 to 8

Creativity

"C is for caterpillar," said Abbe, 6, as she jumped around in the alphabet on the screen, found the matching letters and typed them in. "Now where's D? Oh, there it is," she said. "E is for Earth, F is for flower," she said, before concluding, "This is so easy—I'm going back to coloring."

Like a number of children's programs these days, this one tries to be too many things to too many kids. The software says its activities are geared for players ages 2 to 8, but there are huge differences in skills within that range—many activities will frustrate the youngest users, while others will bore older ones.

In our tests, Jack's House played best with 3- and 4-year-olds. Like Abbe, other 5- and 6-year-olds quickly tired of the

games and showed Jack the door.

$34.95 (Windows, Windows CD-ROM) from Kids Count, (800) 543-7345, (708) 272-9766. Circle #528

Not for tots

With its colorful cartoon graphics, goofy characters and four "rooms" open for play, Corel's Wild Board Games made a delightful first impression on kids in our Lab.

"It looks like Chuck E. Cheese!" declared 4-year-old Janine.

Unfortunately, looking was about all Janine could do—the game suffers from a grossly unrealistic age rating. Four-year-olds can barely grasp the basics of checkers, much less the strategies required to play the other games on the disc: snakes and ladders, reversi, and chess.

Simple games designed for the tykes are here, but hard to find; they're hidden behind objects, and it takes some serious exploration with the mouse to uncover them. More often, clicking around the screen turns up one of the program's 1,500 animations.

The disc plays best when older brothers and sisters join younger siblings to help puzzle out

the challenges. But as with its predecessor, Wild Card Games (see Kid Raves, August 1995), only one child can play at a time—so any opportunity for social interaction gives

★★

Wild Board Games

Ages 4 to 10

Games

way to a computer opponent neither alive nor very lively.

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Corel Systems, (800) 772-6735, (613) 728-8200. Circle #529

Let's do launch

Visiting Hollywood on the PC for the first time, four of our young experts gathered around the computer screen over a storyboard like veteran script doctors. Jennifer, 9, watched as Diana, 13, gave Alex and David, both 10, pointers on how to pick characters and set up special effects.

Within an hour, they'd created J.J., a hippie dog who sat at the front of a classroom, munching on french fries, burping and admonishing the class to "get out your books and start crackin'."

"You win the Academy Award!" Jennifer declared when they clicked to play back their creation and J.J. spoke in a nerdy digitized voice.

Hollywood is a writing program that gives kids tools to create a screenplay, position any of 11 characters in eight poses, assign them one of 17 emotional "looks," give them any of 11 hobbies, and make them speak in one of 26 voices.

Kids can bring all the settings, characters, props and sound effects together as they write; clicking on any selection incorporates it into the storyline. And if they get writer's block, the idea starter will spark their imaginations.

★★★
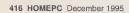
Hollywood

Ages 9 and up

Writing, creativity

"It lets you write whatever you want and the

> "E is for Earth, F is for flower... This is so easy—I'm going back to coloring."
>
> —*Abbe, 6, after a few minutes in Jack's House*

characters will say it," Diana explained. "If you don't like the character's voice, you can change that, too."

But kids in the Lab seemed to like the game best when they

played it in groups, trying to one-up each other with bizarre and imaginative ideas. The hilarity wore off when they played alone.

"The game was fun in the beginning," noted Diana, "especially in the sound-effects and voice department. But the characters said the lines in a monotonous way.

After a while, I got tired of writing scripts and I just played with the special effects."

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Theatrix Interactive, (800) 955-8749, (510) 658-2800. Circle #530

Illusions of grandeur

Every kid who's ever tried to figure out how his or her favorite uncle makes those quarters disappear or picks the mystery card from the deck every time will be mesmerized by Learn the Art of Magic with Jay Alexander.

"This program teaches you great tricks, and you can watch them being done," said Alex, 10. "It's like a personal magic show at your house."

Not only does the program teach 26 tricks, but some of the bells and whistles—or, more pre-

Two playrooms become play-ROMs

Is Putt-Putt ready to become a big wheel at the arcade? Two centers where kids can play with multimedia software opened this fall: if the owners have their way, they'll serve as models for franchises across the United States.

At the Mid-Pike Plaza in Rockville, Md., Tech Trek opened its doors to kids 3 to 13. For $6.95

an hour, kids can try more than 300 CD-ROMs in seven play areas revolving around educational themes. Each site has a store where parents can purchase software, and an espresso café that's quickly evolving into a popular site for birthday parties and group outings.

Meanwhile, in Mount Dora, Fla., Cyberplay—developed by Kids Unlimited—lets kids tackle any of 100 programs, check out the Internet via America Online, or set up a teleconference. all for $8.95 an hour (parents get in free). The center's futuristic facility was decorated by a set designer from NBC's underwater sci-fi adventure, seaQuest. Each Cyberplay computer station is equipped with a "panic button" kids can push if they need help with the PCs. "But you know, it always seems to be the parents, more than the kids, who push it," said Kids Unlimited president Susan Ray. —C.E.

cisely, the balls and vase (used in the vanishing ball trick)—come with the software. Other sleight of hand can be performed using ordinary objects, such as a deck of cards, found around the house.

Kids can watch magician Jay Alexander perform tricks using the magic set that comes with the program, or see him do card, rope, table and money tricks. If they've seen enough of any trick, they can just click to reveal another video and learn the secrets of the illusion.

"It's good," said Gabi, 10. "They teach you how to do the tricks, and then they show you."

If kids are inspired to stage their own magic show, the program helps them print tickets and fliers. They can also click into a biography section to learn about Houdini and lesser-known magicians such as Chung Ling Soo, who was as illusory as his art (otherwise known as William Robinson, of New York, he performed in Far Eastern garb).

Like the masters before them, kids must pledge not to reveal the

★★★★
Learn the Art of Magic with Jay Alexander
Ages 8 to 12
Magic tricks

program's secrets—but they sure couldn't hide their glee.

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Broderbund Software, (800) 521-6263, (415) 382-4600. Circle #531

Kids' Internet bill of writes

What's a parent to do? With all the publicity surrounding the risks of children going on-line on the one hand, and the obvious educational benefits of encouraging them to use e-mail to practice writing on the other, finding a safe way to channel kids' interest in cyberspace can be tough. KidMail Connection is designed to give them access to e-mail while limiting their exposure to other on-line activities.
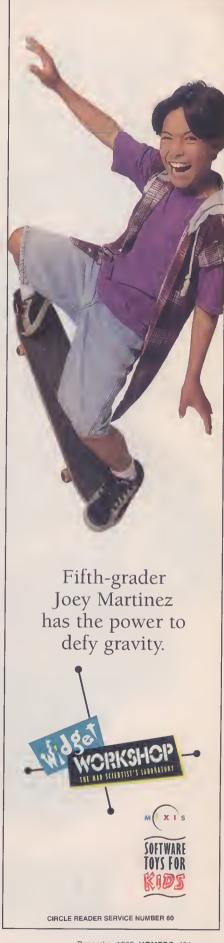
Because of those limits, it wasn't the most popular program among the kids in our Lab, but most of them at least recognized the program's good intentions.

"It allows kids

★★★
KidMail Connection
Ages not rated (best for 8 to 12)
Writing, on-line

Just click on the Art of Magic words, and presto! There's the real story of some grand illusions.

to use e-mail in a safe way," noted 10-year-old Alex. "It still bothers me that parents have too much control over their kids' e-mail, though."

Parents can configure the program to set up a "communications center" from which their children

can send and receive e-mail, leaving other on-line services' features off-limits (the software works with CompuServe, Prodigy and MCI Mail). Kids can choose art and cartoons to decorate their center to reflect one of three popular themes: dinosaurs, space or secret agents.

Tools let them write letters, check mail, keep an address book and send quick prewritten greetings for birthdays and holidays. Parents control their children's on-line access using a password-protected screen.

The disc does exactly what it says it will, and for parents that

may be enough. But the kids had other ideas.

"The program is fun to explore," Alex concluded, "but if you want a little more adventure, try using the full on-line service."

$34.95 (Windows CD-ROM), $29.95 (Windows) from ConnectSoft, (800) 889-3499, (206) 827-6467. Circle #532

Snake charmer
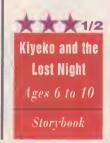
Interactive storybooks have gone multicultural, and the 12-page Kiyeko and the Lost Night tells a tantalizing Amazonian tale: Snakes have conjured up a spell to steal the night, and it's up to young Kiyeko and his dad to save it.

The disc is narrated by Academy Award-winning actor Ben Kingsley, and unfolds in 45 minutes of original music and intriguing sound effects. At any time, kids can switch the narration to hear how the words sound in French, German, Italian or Spanish.

★★★ 1/2

Kiyeko and the Lost Night

Ages 6 to 10

Storybook

"It looks like a movie—it has great animation," said Cara, 10.

As with all interactive storybooks, children

Kiyeko and the Lost Night gives kids the opportunity to hear the story in five languages.

learn the whole story the first time around. But the kids in the Lab returned to the disc to see their favorite parts time and again.

"Watch, watch—he turns into a bird," said Joseph, 6, who jumped to his feet, spread his own arms and flapped them feverishly after he clicked on a character in the village who then morphed into a condor.

Kiyeko is the first in a planned series of multicultural interactive stories from Ubi Soft. The second, which will focus on Eskimo life in the Arctic Circle, is due out this winter—and Joseph can't wait.

As Joseph's sister, Victoria, 9, explained it, "He liked it so much, he hated for it to end."

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Ubi Soft Entertainment, (415) 332-5011. Circle #533

Not so funnies

Everyone wishes for the company of a superhero now and then, and kids will find 18 of them in Comic Creator, plus more than 100 action scenes, 300 props to decorate them, and a built-in link to the Internet, where children can meet other aspiring comics creators, compare notes and ex-

change their work.

But despite the program's impressive number of effects, it left kids scratching their heads over a seemingly ever-scrolling menu bar and lengthy help screens that often didn't help.

"It's called Comic Creator, but it's really complicated to figure out how to create the comics," said 10-year-old Cara.

"The help files didn't really tell me how to work with it," complained Gabriel, also 10. "They just said what each thing did."

★ **1/2**

Comic Creator
Ages 9 to 16
___
Creativity

After considerable time and effort, the kids in the Lab figured out both how to create comics and how to structure each frame in a series of cells to build a strip. But features such as editing text after typing it into the word balloons eluded them—not to mention teachers, parents and editors.

After wading through the documentation in an effort to figure out how to change a character's pose, Cara sighed and concluded, "Mostly, it seems like a lot of reading."

$39.95 (Windows CD-ROM, Macintosh CD-ROM) from Hearst New Media and Technology, (800) 685-4026, (212) 649-2818. Circle #534 ●

Looks like the joke's on kids in Comic Creator: It's hard to change text after it's typed into a scene.

It's Nice To Come

Here at Quantex, we've always stuck to a very straightforward company creed: to give our customers the finest quality product at the very best price with no hassles. Sure, it sounds simple. Yet it still takes us over 24 hours a day and 7 days a week to make it work. The positive results of this commitment shine through, whether you're talking to our people or operating our systems. Industry experts like *PC World* are taking notice. They recently announced that Quantex burst "Out of the blue" with 70% growth last year (6/95). Our team effort towards success is complemented by a strong dedication to keeping pace with the latest technology. In addition to consistently configuring systems with the latest features and components, Quantex is proud to be one of the few companies to have passed Microsoft® Hardware Compatibility Testing. That means that our systems are now Windows® 95 compliant, to make adding new Plug and Play components a snap. We take every measure to assure that our systems are able to perform to the very highest standards. We won't settle for any less, and neither should you!

gear + gadgets

Racing to find home-office machines? Xerox says take five

If you think you can't assemble a suite of corporate-quality business machines on a home-office budget, think again. Xerox's new Document WorkCenter 250 combines a copier, plain-paper fax machine, PC fax/modem, 300-dpi laser-quality printer and grayscale scanner with an automatic document feeder in a 16-by-18-inch device for $700.

The WorkCenter 250 smoothly integrates all five of its office functions. It can print faxes as they arrive, or store up to 35 pages in memory for later delivery. Simple front-panel controls and an LCD display let you activate or disable billing codes; create private, password-protected mailboxes for incoming faxes; define phonebook entries and groups; and perform other advanced functions.

Transmissions can be delayed or scheduled for a specific time to save on phone charges or reduce telecommunications traffic jams, and legal-size documents can be reduced automatically to fit on a standard 8.5-by-11-inch sheet. The top fax speed is a relatively slow 9,600 bps, but the function is compatible with any Group 3/Class 2 fax machine. And just because it has all the other functions, the WorkCenter doesn't neglect its basic copier duties; the unit gets the job done.

★★★★★

Xerox Document WorkCenter 250

Printer/ fax/modem/ copier/scanner

To use the WorkCenter as a PC peripheral, link it to a Windows-based computer with standard parallel printer and 9-pin serial cables. In its PC mode, the WorkCenter can direct faxes to the included WinFax Lite fax software, or fax documents directly from within your Windows programs. Faxes and scanned documents can be converted into live text for editing with the Xerox TextBridge 3.1 optical character recognition (OCR) software that comes with the machine, and you can scan documents or photos with up to 64 gray tones.

Perhaps the biggest risk in buying a multifunction device is that one component will fail, taking all the others down with it. But Xerox's free one-year overnight-replacement policy eases that concern. The WorkCenter 250 might not work for people who need a faster, higher-resolution printer or a full-grayscale or color scanner, but otherwise it offers efficiency that's practically compromise-free. —*David D. Busch*

$700 (Windows) from Xerox, (800) 275-9376, (716) 423-5090. Circle #518

PowerPC notebook's a chip off the old block

Apple's new PowerBook 5300c gives Power Mac users the speed they crave and the portability they need. A zippy 100-MHz 603e PowerPC microprocessor powers the 5300c, which sports a larger display screen and more opportunities to expand than its predecessors in the PowerBook 500 series.

The model we tested came with 16 megabytes of RAM and a 750-MB hard drive. The 10.4-inch, backlit, active-matrix, 640-by-480 color display is large, sharp and easy on the eyes. The keyboard is comfortable, and Apple includes its usual handy trackpad, which lets you move the cursor with the touch of a finger. Although the PowerBook's case looks boxier than it has in the past, the notebook still weighs a mere 6.4 pounds.

Apple designed the 5300 series

Cramped home office? Document WorkCenter 250 fits five machines in a 16-by-18-inch space.

so that you can alter the setup in a number of ways: You can replace the removable floppy-disk drive with another device—say, a second

hard drive. Two PCMCIA slots let you add a modem, networking card or second hard drive. And infrared networking lets you swap files with another PowerBook simply by pointing yours at the other system. (The $70 AirDoc from Farallon lets you send files to a printer or local area network.)

Yet for all that, the 5300 line still isn't quite as flexible as it could be. For instance, you can't pull out the built-in hard drive and swap it for one with more capacity. And the machine lacks the space and power to hold an internal CD-ROM drive— though its SCSI connector lets it run an external drive as well as any desktop or other portable Mac can. Finally, in order to save space and weight, Apple removed the built-in Ethernet networking card, one of the two stereo speakers, and the optional built-in modem so popular in the Power-Book 500 series. Although the machine has built-in 16-bit, CD-quality stereo sound, the loss of the second speaker reduces its aural brilliance unless you listen in with a set of headphones.

★★★1/2
Apple Power-Book 5300c
Portable computer

One other bit of new technology didn't quite make it: Apple literally took some heat recently when it recalled models using lithium-ion batteries (they sometimes caught fire in tests) and substituted a nickel/metal-hydride version that reduces battery life by about 20 percent. Still, our unit worked for almost three hours. (Apple says it will use the lithium-ion battery design when its defect is fixed.)

The 5300c is a solid machine that takes a great step forward in performance, if not pizzazz. It might not win over many PC users, but Macintosh fans seeking a powerful laptop will snap it up—if they can afford the hefty price. —*John Eckhouse*

$4,399, with 16 MB of RAM, 750-MB hard drive and active-matrix color display, from Apple Computer, (800) 538-9696, (408) 996-1010. Circle #519

How PCs bite into storage space—and how to get it back

These days, most new PCs pack hefty 1-gigabyte (GB) hard drives. But if you expect to stretch out in all that space, you may be in for a surprise: Depending on how the drive is "partitioned," you could have less room than you think. Partitioning a hard drive, which is usually done by the PC manufacturer before the system gets to the store, means assigning the hard drive one or more "logical drive letters" (typically, "C:"), then setting the storage size for each one. Today, most manufacturers partition hard drives into one large area (that is, drive letter "C:" is sized to encompass the entire hard drive). But this practice can waste as much as a third of your precious hard drive space; in general, the larger the partition size, the more space it will use to store each file. For instance, on the average 540-megabyte (MB) IDE hard drive, a 1-kilobyte (KB) word-processing file will be assigned to a 16-KB storage block, called a "cluster"—leaving the remaining 15 KB to languish. Cluster size doubles on a 1-GB drive with a single partition; the bigger the partition, the bigger the cluster.

To increase usable space on a new drive, you can repartition it. For maximum efficiency, a 1-GB drive should be divided into at least two 500-MB partitions. (Four 250-MB partitions is even better, but you'll have to work with four drive letters—for example, C:, D:, E: and F:—and that can get unwieldy.) You can use DOS's *fdisk* command, but doing so destroys all data on the drive, so if you choose this option, be sure to back up everything on the drive before you start. Or, try a software solution. Power-Quest's $69 PartitionMagic (DOS, OS/2) repartitions your hard drive without destroying data—though the company recommends a full backup just in case. —*Oliver Rist*

Telephony card combo has hangups

Adding an adapter card to a PC is asking for trouble—and we certainly had our share when we installed the miroConnect 34 Wave communications card, a telephony and wavetable sound card that has all the right features for the right price: $299.

⭐⭐

miroConnect 34 Wave

Telephony/ sound/ modem card

The card combines a 28.8-kilobit-per-second fax and data modem—with digital simultaneous voice and data (DSVD) capabilities—and IBM's Mwave wavetable audio. The technology is state-of-the art: The card's full-duplex phone capabilities mean two people can speak simultaneously—not always a given with telephony cards. To help you share documents, the card comes with a trial version of Intel's ProShare (it expires 60 days after you install it). Miro's phone-dialing and voicemail management software, miroConnect, is easy to use, and the sound quality of recorded messages is top-notch.

Now if only the card were easier to install. The full-length 16-bit card works with any ISA or VL-Bus-based computer, and it connects to an IDE CD-ROM drive. But don't be fooled by the fact that it has no hardware jumpers—the tiny pieces of plastic that fit over pins to change IRQ (interrupt request) settings. It took me many attempts to find the right configuration, as well as excursions into the *autoexec.bat* and *config.sys* files to avoid errors. A toll call to the company's technical-support department in San Francisco solved one problem in about 20 minutes (the technician knew I was an editor at *HomePC*). But when I called again, at 5:02 p.m. Pacific Daylight Time, the offices and technical-support lines were already closed.

Unless you're in the unusual situation of needing to upgrade your modem and sound card at once,

you may be better off remaining unConnected. —*J.C.*

$299 (DOS, Windows) from Miro, (800) 249-6476, (415) 855-0940. Circle #520

Pentium Pro PCs? Not so fast...

With the release of the Pentium Pro, Intel's fastest processor yet, you may wonder if the days are already numbered for that speedy Pentium PC on your desk. Not to worry: The new processors are fully compatible with Intel's older chips, from the Pentium all the way back to the 286. And although the Pentium Pro promises major performance gains, it takes software that's not yet readily available to make that happen.

The first Pentium Pro chips will run at a blazing 150 MHz, and will incorporate a built-in 256-kilobyte second-level memory cache (a chunk of fast-access memory) in addition to their 16-KB first-level cache. (The Pentium has only the first-level cache, although adding a 256-KB cache to a PC's motherboard can boost performance.) But unless you use heavy-duty programs—say, 3-D image rendering—you won't need the Pro's power just yet; 16-bit applications—that is, all software designed for Windows 3.1—don't bring out the best in the new chip, which doesn't run such programs any better than a Pentium can.

Intel estimates home computers using the Pentium Pro won't appear until late 1996 or early 1997, when more 32-bit applications (such as those written specifically for Windows 95) will be available. That means you won't have to think about cashing in those Pentium chips for a couple of years yet. —*J.C.*

For gamers, a step in the right direction

The screaming stock car cuts across your path, jockeying for an inside position on the track. You slam the brake with your left foot to avoid a collision, then deftly downshift and hit the right pedal hard to scoot past the car on the outside. Leaving the turn, you keep the accelerator glued to the floor and speed down the straightaway to take the checkered flag.
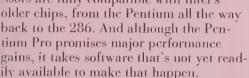
You certainly won't qualify for the NASCAR circuit, not to mention a pilot's license, by logging hours playing games at your

⭐⭐1/2

CH Pedals

Accessories

computer, but CH Products' new foot-pedal game controller will add a satisfying bit of realism to racing- and flight-based games. You can activate CH Pedals simply by selecting

Joystick 2 (or B) as a controller for an activity, such as braking or accelerating. An on-screen manual provides step-by-step instructions for configuring many popular games—including MechWarrior 2 and Microsoft Flight Simulator—to work with the pedals.

You'll need plenty of room to stretch out at a comfortable angle, and the rigid side-by-side configuration can be a bit awkward. But you'll forget about that after a few minutes of deft maneuvering—and quickly wonder why you ever relied on a joystick and frantic keyboard strokes in the first place. —D.B.

$79.95 (DOS, Windows) from CH Products, (800) 624-5804; (619) 598-2518. Circle #521

Motion slickness

Video Artist, a video-capture and -display card, hands you everything you need to add snappy titles, special effects and professional-looking transitions to your PC presentations. The card slips into a free slot in your computer and connects via cable to your camcorder, VCR or other input device. Another cord connects to your VCR or TV for recording or display. If you've ever installed an internal modem or sound card, odds are you'll be able to install Video Artist and its software in about 15 minutes.

Then, just turn on your camcorder, choose Capture from the Video Capture software's View menu, and record a live scene or transfer images from a tape; you can set the resolution at 320-by-240 or 640-by-480. A Video Editor lets you load, cut and paste clips in two parallel tracks that can be faded, dissolved or "wiped" into one another, while a third track

★★★ 1/2
Video Artist Model VE500
Video-capture card

lets you overlay text, graphics and special effects. A Morph Animation Editor is also included.

Shoppers will find less expensive video-capture cards on the shelves, but they'll be hard-pressed to see higher-quality images or software that's easier to use. One caveat: Reserve plenty of hard drive space; 30 minutes of digitized video takes up nearly a gigabyte of storage. Your best bet is to save your finished productions on videotape rather than on your hard drive, then edit them one short segment at a time. —D.B.

$389 (Windows) from Reveal, (800) 359-2177, (818) 704-6300. Circle #522

Notebook sales: Compaq steps ahead

By the end of 1995, shoppers will have purchased 4.16 million notebook computers. Which models are they walking out with most often? Here's a look at the year's top-sellers.

Manufacturer	Model	Unit sales (through 9/95)
Compaq	LTE Elite 4/75CX (active-matrix)	114,864
IBM	ThinkPad 486DX4 (active-matrix)	108,811
Compaq	Contura 400C (passive-matrix)	99,007
NEC	Versa 486DX4 (active-matrix)	89,677
IBM	ThinkPad 486DX4 (passive-matrix)	80,176
Apple	PowerBook 520C (passive-matrix)	77,056
NEC	Versa 486DX2 (passive-matrix)	65,786
Toshiba	T2450CT Satellite Pro (active-matrix)	61,864
NEC	Versa 486DX2 (active-matrix)	58,861

(Source: StoreBoard, September 1995)

Backup drive's solid, but no major advance

Whether you're looking for a quick way to back up all your data, or you need extra space to store mammoth programs or bulky information files,

SyQuest's EZ135 Drive promises to hold your attention. The drive accepts 135-megabyte cartridges, and claims a fast, 13.5-millisecond

seek time as well as a 2.4-mega-byte-per-second maximum sustained data-transfer rate. (By comparison, Iomega's $240 Zip drive uses 100-MB cartridges, has a 29-ms seek time and offers a 1.4-MB sustained transfer rate.)

The external SCSI version of the EZ135 we tested worked with large and small word-processing documents comfortably, and it handled file backup quickly and smoothly.

Though attractively designed, the external unit is bulkier than the (external) Zip drive. And if you can't make it to a gym, you can get a workout lifting its big power adapter. The Zip drive has a hefty adapter, too, but at least Iomega gives you an option to buy a smaller one; that's not so for the EZ135. You *can* choose an internal IDE unit, but we were unimpressed by its confusing, DOS-based installation utility. (SyQuest also plans to have an external parallel-port version available by December.)

In fact, SyQuest might do well to give more thought to its utility software in general. For instance, on our test computer—a Pentium-based Packard Bell Legend running Windows for Workgroups 3.11—the setup routine created a SyQuest Utility program group, yet clicking on its Backup Copy icon launched a DOS-based backup application that was functional, but far from an ideal solution.

Still, at about $240 for the drive and $20 for each cartridge (one comes with the drive), the EZ135 is a cost-effective solution for anyone who needs either a sensible backup system or more storage space. Although a smaller size and better software would make the EZ135 more appealing, it will do an adequate job for most home computer users just the way it is. —*Jennifer Zaino*

$199.95, internal IDE version (DOS); $239.95, external SCSI version (DOS, Macintosh); $239.95, parallel-port version (DOS) from SyQuest Technology, (800) 245-2278, (510) 226-4000. Circle #523

Shoot to thrill

If nothing else, the Casio QV-10 digital camera will make you the center of attention at your next party. It *looks* like a standard 35-millimeter camera—until you notice the LCD screen that acts as both a viewfinder and a display window, which is sure to draw *ooohs* and *aaahs* from all your friends. But that attention doesn't come cheap: The QV-10 costs nearly $1,000.

If you've got the cash, the camera is great fun. The 1.8-inch LCD screen gives you an excellent preview of what you'll see on your computer screen—and with its swiveling lens, you can even watch yourself as you snap a self-portrait.

The QV-10 is designed to be virtually idiot-proof. Turn the power on, switch to "rec" mode and start shooting. Focus is automatic, and the 2-megabyte flash-memory chip can store up to 96 pictures at once. Better yet, it won't wear out: transfer the images to your computer, and you can then delete them from the camera's memory and start again.

★★★

Casio QV-10

Digital camera

The QV-10 reproduces light about as well as most 35-mm cameras, but it doesn't have a flash; two lighting settings let you adjust for dim and bright light, and the LCD screen shows you when you're risking over- or underexposure.

Once you've taken your pictures, Casio's QV-10 software lets you transfer them from the camera to the PC in any of three storage formats: *.tif*, *.bmp*, and Casio's own *.cam* format, which lets you store the pictures as thumbnails in an "album." But pictures can't be exported to an image-editing program such as Adobe PhotoShop in the *.cam* format, and the Casio software doesn't deliver even rudimentary image-editing features.
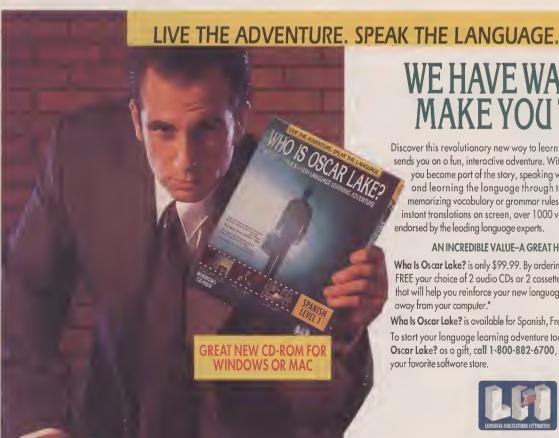
You won't get the crispness of a 35-mm print, since the maximum resolution is only 640-by-480. On paper, sharp edges look blocky, and color reproduction depends on your printer. Nevertheless, the Casio QV-10 is one of the niftiest new toys a gadget fan could hope to find in a gift-wrapped box. —*J.C.*

$995 (Windows, Macintosh) from Casio. (800) 962-2746, (201) 361-5400. Circle #524 •

A VISUAL GUIDE TO
WINDOWS 95
PERFORMANCE BOOSTERS

- **CD-ROM Settings** • **ScanDisk**
- **Disk Defragmenter** • **DriveSpace**
- **Backup** • **Compression Agent**
  - **System Agent**

A visual guide to # Windows 95

by Ram Tackett

CD-ROM (CONTROL PANEL, SYSTEM)

SCANDISK

DISK DEFRAGMENTER

DRIVESPACE

BACKUP

COMPRESSION AGENT

SYSTEM AGENT
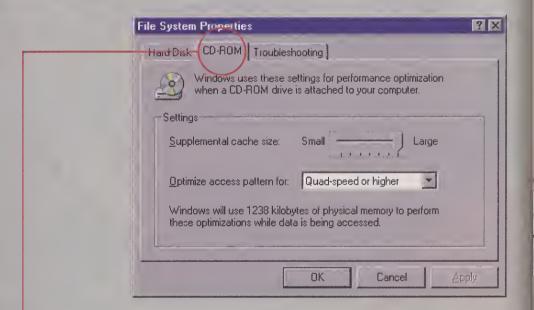
I t's tempting to think that an operating system as powerful as Windows 95 could maximize PC performance or keep track of system maintenance without asking you to lift a finger. No such luck. But Windows 95 does include a number of helpful tools you can use to speed up hard drive activity, increase storage space for your files and more.

In this special section—the last of three Visual Guides running in consecutive issues of HomePC—we'll show you how you can make the most of Windows 95's maintenance and productivity features. You'll see how to set options to improve CD-ROM performance, as well as instructions for backing up everything from single files to an entire hard drive. A look at the Disk Defragmenter will demonstrate what you can do to keep your hard drive performing at top speed.

We'll also introduce you to Windows 95's ScanDisk, which keeps fragments of deleted files from slowing PC performance, and DriveSpace, which increases available storage space without requiring you to splurge on a brand-new hard drive.

Finally, we'll examine two features of the $49.95 add-on program, Microsoft Plus. First, we'll take a look at the Compression Agent, a handy utility that gives you control over the way the system compresses files. And then our tour ends with the System Agent, which takes a load off your shoulders by automating optimization and system maintenance tasks.

File System Properties

Hard Disk | CD-ROM | Troubleshooting

Windows uses these settings for performance optimization when a CD-ROM drive is attached to your computer.

Settings

Supplemental cache size: Small ————— Large

Optimize access pattern for: Quad-speed or higher

Windows will use 1238 kilobytes of physical memory to perform these optimizations while data is being accessed.

OK | Cancel | Apply

Windows 95 lets you fine-tune a system with at least 8 megabytes (MB) of RAM for better CD-ROM performance. First, go to the File System Properties screen (click on Start, then choose Settings and Control Panel; double-click on the System icon, choose Performance from the System Properties dialog box and click on the File System option). In File System Properties, click on the CD-ROM tab and choose "Quad-speed or higher" from the drop-down menu. This reserves a little more than 1 MB of RAM to "cache" (read ahead) information from your disc; before going to the CD-ROM, Windows will look at the cache to see if the data you want is there. It's faster to pull up information from memory than it is to go to the CD-ROM, so you'll get the response you need more quickly.

Are your SCSI peripherals I/O trained for Windows 95?

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>
> —John C. Dvorak, *PC MAGAZINE***

⊂ladaptec

I/O. NOW MORE IMPORTANT THAN EVER.

SEE IT

![Start button with Windows logo]

WINDOWS 95 IS TAKING THE PC TO THE NEXT LEVEL. A LEVEL THAT YESTERDAY'S MONITORS JUST CAN'T KEEP UP WITH. SO TO SEE ALL THAT IT CAN DO, YOU'LL NEED A MONITOR THAT'S UP TO SPEED.

INTRODUCING THE EO SERIES FROM PRINCETON GRAPHIC SYSTEMS. THE HIGH PERFORMANCE SERIES THAT IS TAKING MONITORS TO THE NEXT LEVEL.

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ScanDisk
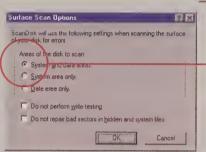
Managing the comings and goings of the numerous files on your computer is no easy task, and sometimes Windows 95 falls down on the job. For instance, it may leave pieces of files you think you're deleted lingering on as lost file fragments on your hard disk. Or it may cross-link different files after a program crash, assigning them the same space on your disk. That can spell trouble when you try to access data or run programs. Luckily, the built-in ScanDisk utility can free precious disk space tied up by lost fragments, as well as resolve cross-linking errors.

You can perform a Standard or Thorough disk scan. If you're having problems starting programs or booting up your PC, choose Thorough; otherwise, pick Standard. Click on Start, then select Programs, Accessories, System Tools and ScanDisk.
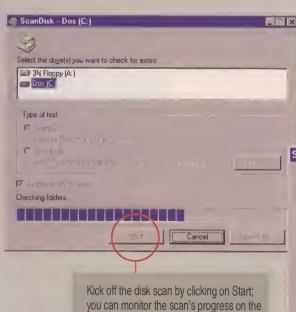
If you pick Thorough, the Options button lets you set test limits. The default checks the system area (the part of your hard disk that tells a PC how to start) and data area (the rest of the disk).

The Advanced button in the ScanDisk box lets you decide how to treat problems. For instance, file fragments usually waste space; click on Free to get it back.

▶ **ScanDisk stops leftover fragments of deleted files from gobbling up hard disk space.**
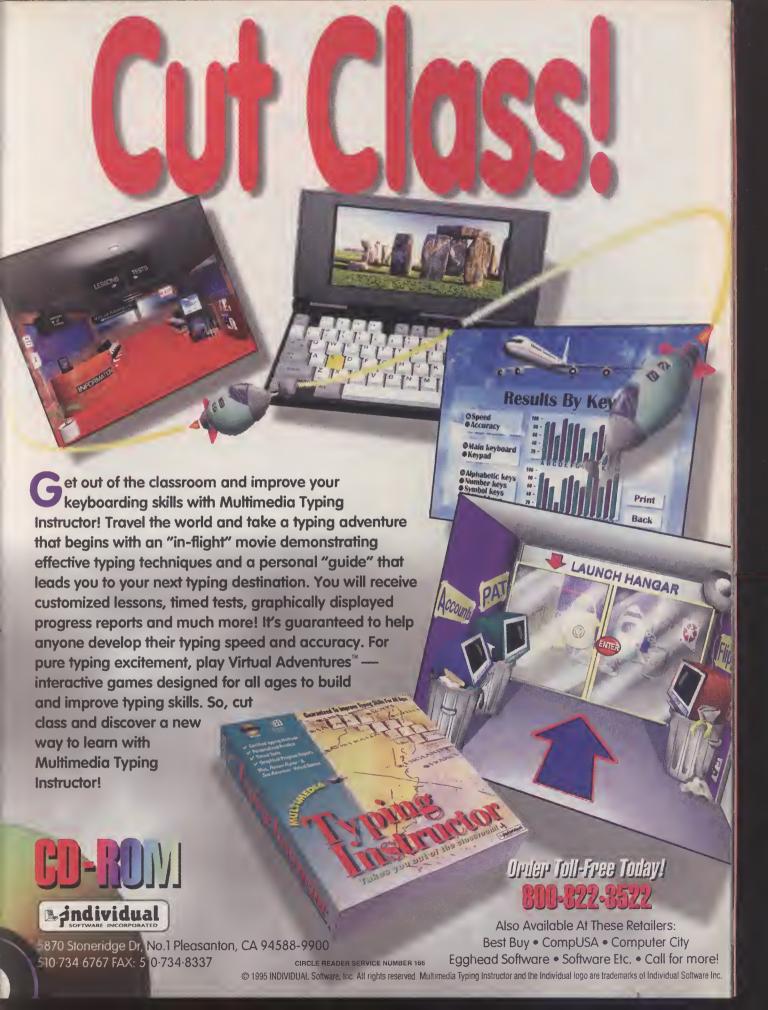
Kick off the disk scan by clicking on Start; you can monitor the scan's progress on the screen. When complete, a report displays the contents of your newly scanned disk.

ScanDisk Results - Dos (C:)

ScanDisk did not find any errors on this drive.

538,607,616 bytes total disk space
0 bytes in bad sectors
6,471,680 bytes in 392 folders
15,024,128 bytes in 122 hidden files
351,272,960 bytes in 3,967 user files
165,838,848 bytes available on disk
16,384 bytes in each allocation unit
32,874 total allocation units on disk
10,122 available allocation units

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Disk Defragmenter

Launch Disk Defragmenter by clicking on Start, then select Programs, Accessories, System Tools and Disk Defragmenter. Choose the drive you want to defrag.

To defrag or not to defrag? Disk Defragmenter tells you when defragging can improve performance. A drive that's more than 10 percent fragmented is usually a likely candidate for the process.

Windows 95 picked up one of Windows 3.1's bad habits: It haphazardly scatters the contents of new files in whatever blocks of free hard disk space it finds. PC performance suffers when you retrieve files that have been broken up this way. Fortunately, Windows 95's Disk Defragmenter lets you correct the problem; the utility puts all the pieces of segmented files back together again, speeding up your hard disk activity.

Disk Defragmenter

Drive C is 16% fragmented. Defragmenting this drive could improve its performance.

While Windows defragments your drive, you can safely use your computer to carry out other tasks. However, your computer may operate more slowly while the Defragmenter is running.

| Start | Select Drive | Advanced... | Exit |

Advanced Options

Defragmentation method
- ○ Full defragmentation (both files and free space)
- ○ Defragment files only
- ○ Consolidate free space only

☑ Check drive for errors

When do you want to use these options?
- ○ This time only. Next time, use the defaults again.
- ● Save these options and use them every time.

| OK | Cancel |

Click on Advanced to choose a defrag method. The default setting is Full, which lines up all file pieces next to each other and puts all free space at the end of the disk.

▶ **Disk Defragmenter reassembles pieces of files scattered around the hard disk to improve overall performance.**

A status bar shows how the defragging process is proceeding. If you want more information, click on Show Details.

Defragmenting Drive C

6% Complete

| Stop | Pause | Show Details |

Defrag Legend

- ■ Optimized (defragmented) data
- Unoptimized data that:
  - □ Belongs at beginning of drive
  - ■ Belongs in middle of drive
  - ■ Belongs at end of drive

- □ Free space
- ▯ Data that will not be moved
- ▨ Bad (damaged) area of the disk
- ■ Data that's currently being read
- ■ Data that's currently being written

Each box represents one disk cluster.

| Close |

Now you can see the segments of your hard disk represented as colorful boxes. Click on Legend to learn, for instance, that the light-blue boxes represent data that belongs at the beginning of the hard disk. After you've defragged, you should notice that your files open more quickly and also save faster.

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DriveSpace

R unning a little low on your hard drive space? Small wonder—you've probably been packing it tight with new Windows 95 programs while clinging to some Windows 3.1 favorites. The good news is you don't have to rush out and buy a bigger hard drive. With Windows 95's DriveSpace, you can make room for an expanding library of software programs and data. This disk compression utility can double your storage space—a neat trick that squeezes extra life from your formerly squeezed drive.
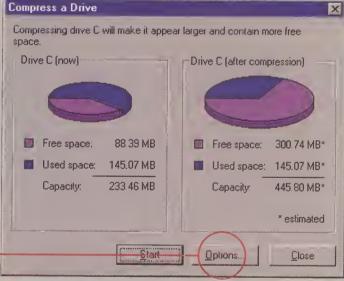
If you didn't activate the DriveSpace utility when you installed Windows 95, just click on the Add/Remove Programs icon in the Control Panel, choose the Windows Setup tab, and then click on the checkbox next to the Disk Tools item.
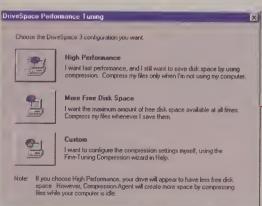
Once DriveSpace is installed, click on the Start button, and select Programs, Accessories and System Tools. Then click on DriveSpace. Choose Drive from the menu bar and click on Compress.

DriveSpace

Drive   Advanced   Help

Compress...
Uncompress...
Adjust Free Space...
Properties...

Format...

Exit

3.5" Floppy drive
5.25" Floppy drive
Physical drive
Physical drive

Compresses the selected drive.

▶ **Using DriveSpace can double the available storage space on your hard drive.**

A pie chart will show you how much free space you'll gain by compression. Click on Start if you're satisfied with the projection; if not, click on Options to change the amount of free space.

Compress a Drive

Compressing drive C will make it appear larger and contain more free space.

Drive C (now)

☐ Free space: 88.39 MB
■ Used space: 145.07 MB
Capacity: 233.46 MB

Drive C (after compression)

☐ Free space: 300.74 MB*
■ Used space: 145.07 MB*
Capacity: 445.80 MB*

* estimated

Start   Options...   Close

DriveSpace Performance Tuning

Choose the DriveSpace 3 configuration you want.

High Performance
I want fast performance, and I still want to save disk space by using compression. Compress my files only when I'm not using my computer.

More Free Disk Space
I want the maximum amount of free disk space available at all times. Compress my files whenever I save them.

Custom
I want to configure the compression settings myself, using the Fine-Tuning Compression wizard in Help.

Note: If you choose High Performance, your drive will appear to have less free disk space. However, Compression Agent will create more space by compressing files while your computer is idle.

DriveSpace 3 in the optional Microsoft Plus package compresses up to 50 percent more than DriveSpace. (DriveSpace 3 replaces DriveSpace and is accessed the same way.) It also provides more options.

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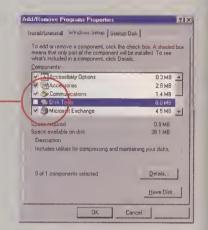
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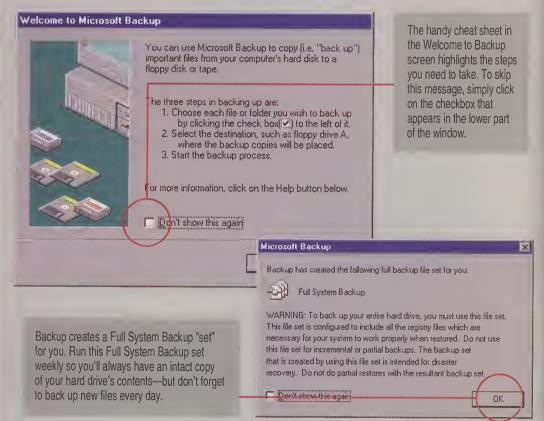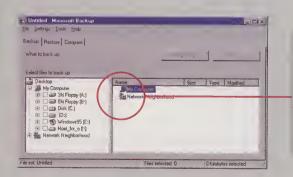
Don't wait until you've accidentally erased a file or lost all your important information in a hard drive crash to learn the value of backing up. With Windows 95, all you need are extra floppies—or a backup device such as a tape drive—to ensure you'll always be able to lay your hands on a secure copy of your vital information.

Install Backup by clicking on Start, then select Settings and Control Panel. Double-click on the Add/Remove Programs icon, then click on the Windows Setup tab. From here, click on Disk Tools, then on the Details button. Click on the checkbox next to the Backup item. Once Backup is installed, click on Start again, then select Programs, Accessories, System Tools and Backup.
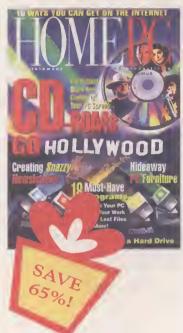
▶ Windows 95's Backup utility makes it easy to safeguard all your important data.

Welcome to Microsoft Backup

You can use Microsoft Backup to copy (i.e. "back up") important files from your computer's hard disk to a floppy disk or tape.

The three steps in backing up are:
1. Choose each file or folder you wish to back up by clicking the check box ☑ to the left of it.
2. Select the destination, such as floppy drive A, where the backup copies will be placed.
3. Start the backup process.

For more information, click on the Help button below.

☐ Don't show this again

The handy cheat sheet in the Welcome to Backup screen highlights the steps you need to take. To skip this message, simply click on the checkbox that appears in the lower part of the window.

Microsoft Backup

Backup has created the following full backup file set for you:

🗄 Full System Backup

WARNING: To back up your entire hard drive, you must use this file set. This file set is configured to include all the registry files which are necessary for your system to work properly when restored. Do not use this file set for incremental or partial backups. The backup set that is created by using this file set is intended for disaster recovery. Do not do partial restores with the resultant backup set.

☐ Don't show this again   OK

Backup creates a Full System Backup "set" for you. Run this Full System Backup set weekly so you'll always have an intact copy of your hard drive's contents—but don't forget to back up new files every day.

To back up only certain files or drives, click on the Backup tab, then on the unmarked checkbox next to the appropriate drive or file. To back up specific folders, click on the plus symbol next to the drive in question, then on the checkbox next to each directory. For a full hard drive backup, go to the File menu and open Full System Backup.

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Compression Agent

W indows 95's DriveSpace feature doesn't let you work on individual files. For that, you'll need the Compression Agent found in the Windows 95 add-on program, Microsoft Plus, which lets you designate particular files for a greater or lesser degree of compression. (You save more disk space using the highest levels, but files also take longer to open.) To use the Compression Agent, you must upgrade to DriveSpace 3, which comes in the Plus package.

The Compression Agent UltraPack option offers the highest level of compression, followed by HiPack. Click on Settings to take your pick. To get to the screen, click on Start, then choose Programs, Accessories, System Tools and Compression Agent.

Compression Agent - Drive D

Compression Agent recompresses your files according to the settings you specify. This might take a long time, especially on a large drive or if you have not run Compression Agent in a while.

You can pause or stop Compression Agent at any time without affecting the work it has already completed.

Pause | Stop | Settings | Overview

New compression format	Space gained by increasing compression	Space lost to improve performance
UltraPack	0 KB	0 KB
HiPack	57 KB	0 KB
None	0 KB	0 KB
Total	57 KB	0 KB

Increase in Disk space 57 KB

11% Complete

▶ **The Compression Agent lets you exempt particular files from compression for speedier access.**

Compression Agent Settings

Compression methods

Compression Agent can use different compression methods to recompress different files on your drive

UltraPack compression provides maximum disk-space savings, but your system may be slower when accessing UltraPacked files

1. Which files do you want to UltraPack?
   - Do not UltraPack any files (maximum performance)
   - UltraPack all files (maximum disk space; not recommended for 486-based computers)
   - UltraPack only files not used within the last [30] days

2. Do you want to HiPack the rest of your files?
   - Yes (good performance, good compression)
   - No, store them uncompressed (maximum performance)

☑ Save these settings as the new default settings

OK | Cancel | Exceptions | Advanced

For better all-around file access speed, you may decide not to use UltraPack on any files. Or you may choose to use UltraPack only on files that are unused for a specified number of days. Click on Exceptions to alter the general rules set in this screen.

To use the Add Exceptions screen, click on Add from within the Exceptions dialog box. Then you can designate use of UltraPack, HiPack or No Compression on the file, file type or folder you specify.
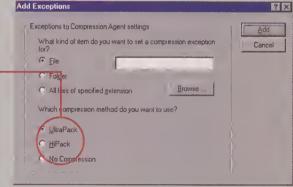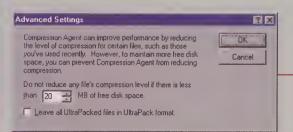
Add Exceptions

Exceptions to Compression Agent settings

What kind of item do you want to set a compression exception for?
- File
- Folder
- All files of specified extension

Browse...

Which compression method do you want to use?
- UltraPack
- HiPack
- No Compression

Add | Cancel

Advanced Settings

Compression Agent can improve performance by reducing the level of compression for certain files, such as those you've used recently. However, to maintain more free disk space, you can prevent Compression Agent from reducing compression.

Do not reduce any file's compression level if there is less than [20] MB of free disk space.

☐ Leave all UltraPacked files in UltraPack format.

OK | Cancel

From the Compression Agent screen, click on Settings, then on Advanced to indicate how much free disk space you want to maintain at all times, but be aware that a large amount could compromise system performance.

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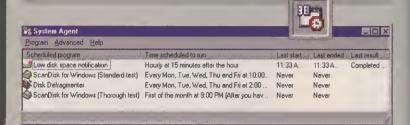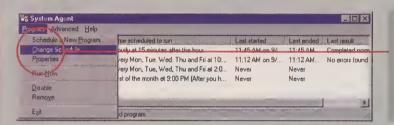
I t's great to have Windows 95's tools on hand to help you protect your data and keep your PC functioning in top shape. But with your hectic schedule, it's no surprise that now and then you might forget to defrag your disk or neglect to scan files for errors. That's where Microsoft Plus's System Agent steps in. This utility lets you automate such tasks; they'll run on their own at designated times, and you won't have to give them a second thought.

A new icon (shown below) appears on your taskbar when you install the Plus pack's System Agent; just double-click on this icon to launch the program. System Agent runs in the background and will notify you if disk space gets low, and schedule Disk Defragmenter and ScanDisk to run at a preset time without your assistance.
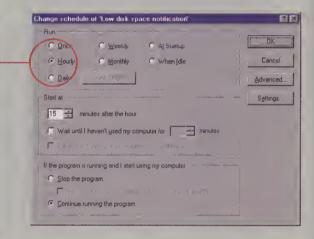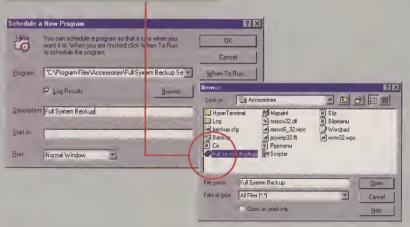
To change a program's default settings, simply click on the program's name, then on Program, and finally on Change Schedule from the drop-down menu.

▶ **With System Agent, Windows 95 will perform system maintenance chores such as disk defragging and backup automatically.**

From the Change Schedule screen, you can alter various aspects of the default settings. For instance, you may want an activity such as Low Disk Space Notification to occur daily rather than hourly.

Click on Program, then on Schedule a New Program from the System Agent screen to schedule full backup of your hard disk. Click on Browse and select the Full System Backup file in the Accessories folder; System Agent will now automatically run Backup at a time you indicate.

Ram Tackett is a Houston-based writer.

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005	048	091	134	177	220	263	306	349	392	435	478	521	564	807	650	693	736	779	822	866
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013	056	099	142	185	228	271	314	357	400	443	486	529	572	615	658	701	744	787	831	874
014	057	100	143	186	229	272	315	358	401	444	487	530	573	616	659	702	745	788	832	875
015	058	101	144	187	230	273	316	359	402	445	488	531	574	617	660	703	746	789	833	876
016	059	102	145	188	231	274	317	360	403	446	489	532	575	618	661	704	747	790	834	877
017	060	103	146	189	232	275	318	361	404	447	490	533	576	619	662	705	748	791	835	878
018	061	104	147	190	233	276	319	362	405	448	491	534	577	620	863	706	749	792	836	879
019	062	105	148	191	234	277	320	363	406	449	492	535	578	621	664	707	750	793	837	880
020	063	106	149	192	235	278	321	364	407	450	493	536	579	622	665	708	751	794	838	881
021	064	107	150	193	236	279	322	365	408	451	494	537	580	623	666	709	752	795	839	882
022	065	108	151	194	237	280	323	366	409	452	495	538	581	624	667	710	753	796	840	883
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026	069	112	155	198	241	284	327	370	413	456	499	542	585	628	671	714	757	800	844	887
027	070	113	156	199	242	285	328	371	414	457	500	543	586	629	672	715	758	801	845	888
028	071	114	157	200	243	286	329	372	415	458	501	544	587	630	673	716	759	802	846	889
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031	074	117	160	203	246	289	332	375	418	461	504	547	590	633	876	719	762	805	849	892
032	075	118	161	204	247	290	333	376	419	462	505	548	591	634	677	720	763	806	850	893
033	076	119	162	205	248	291	334	377	420	463	506	507	592	635	678	721	764	807	851	894
034	077	120	163	206	249	292	335	378	421	464	507	550	593	636	679	722	765	808	852	895
035	078	121	164	207	250	293	336	379	422	465	508	551	594	637	680	723	766	809	853	896
036	079	122	165	208	251	294	337	380	423	466	509	552	595	638	681	724	767	810	854	897
037	080	123	166	209	252	295	338	381	424	467	510	553	596	639	682	725	768	811	855	898
038	081	124	167	210	253	296	339	382	425	468	511	554	597	640	683	726	769	812	856	899
039	082	125	168	211	254	297	340	383	426	469	512	555	598	641	684	727	770	813	857	900
040	083	126	169	212	255	298	341	384	427	470	513	556	599	842	685	728	771	814	858	901
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Guaranteed Compatibility: With its upgraded computer chip (6N-138), the Midi Link cable offers no-headache compatibility with sound cards, personal computers, and MIDI software. The Midi Link cable has a proven track record with over 20,000 cables sold already to satisfied customers.

Hire your computer as a piano teacher!

You've been wanting to learn to play the piano but could not afford the price or the time for piano lessons. With today's technology, the software reviewed in the Midi Link catalog brings you the fun and ease to learn at your own pace and visualize your progress as you go.

Be your own orchestra!

Creating music used to be a slow and tiresome process, only within the reach of geniuses such as Mozart. Learn about the capabilities of MIDI technology from the Midi Link catalog and bring the art of creating full music scores to you finger tips.

ScreenToyz

ScreenToyz combine Hollywood quality on-screen animation with a wacky toy that plugs into your computer keyboard port. It's a whole new way to play that's part toy, part cartoon, and all fun.

The ScreenToyz product line consists of: TNT Tad and his Detonator; Latrina and her slime-filled Toilet; and Stitch with his high-voltage Knife Switch.

Each ScreenToyz character, developed by Saturday-morning cartoonists, has its own individual set of user-controllable animations. Each unique ScreenToyz hardware device has a look and feel which complements the character's zany activities. And the multi-position control handle in each of the ScreenToyz lets you blow up, flush down or zap your screen at a moment's notice.

Fifteen action-packed software modules with desktop transition effects and animated sequences are included with each ScreenToyz. You have real-time control of the characters through a wide range of diverse on-screen antics. The result is hours of slapstick entertainment!
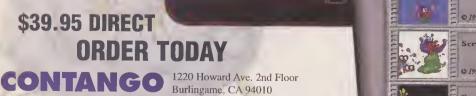
ScreenToyz TV ☞

The ScreenTayz TV makes it fun and easy to select your entertainment and set up the on-screen action.
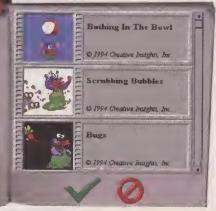
ScreenToyz TV Guide ☝

Far your viewing pleasure, all the different transition effects and animation sequences are listed in the ScreenTayz TV Guide.

Bathing In The Bowl
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Scrubbing Bubbles
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Bugs
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and stylish. The kind of piece you'd be proud to display anywhere in your home or office. It would come as one piece, **completely assembled**, delivered by professionals, and placed exactly where you want it, ready to go.

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CIRCLE READER SERVICE NUMBER 332

the cyber ace

YOUR ON-LINE TOUR GUIDE

BY JOHN ECKHOUSE

Eye spy. You'd think the **Central Intelligence Agency** would be the most guarded spot in the nation, but any Tom, Dick or Leonid with access to the Web can now take a tour of its headquarters, which is not open to the public. Let CIA director John Deutch welcome you in text or an audio clip, then snoop around the library, read background facts or link to other intelligence-community sites. Funny, they'll tell you who designed the headquarters and how many square feet it occupies, and they'll show you an aerial photo, but

nowhere do they give the address...
World Wide Web (*http://www.odci. gov/cia*)

Color commentary. Do you miss the fun of coloring? Then drop into **Crayola*Crayola*Crayola*Crayola.** Seven crayons direct you to fun facts (Binney & Smith makes 5 million crayons a day; the most popular color is blue), and offer some colorful tidbits of Crayola lore and—thank goodness—stain-removal tips. You may also catch a contest; one recent competition offered a $25,000 prize in two of the

nicest colors in the Crayola box—silver and gold.
World Wide Web (*http://www.crayola.com/crayola/*)

Vaudeville lives. I was born too late to see the crooners and baggy-pants comics who traveled the vaudeville circuit from about 1875 to 1925, but I'm glad I caught some of their acts at **Carl's Vaudeville & Ragtime Show.** It's filled with vintage recordings you'd be hard-pressed to find elsewhere. How entertaining is it? If you're going to visit, take a tip from Ada Jones, who sang "Put On Your Slippers, You're In For The Night." **World Wide Web** (*http://www.netrunner.net/~phono/index.htm*)

Who is the Cyber Ace? "I'll take The Web for $500, Alex." If you know what that means, there's no question you'll enjoy **Hyper-Jeopardy!**—an on-line version of the TV game show where contestants get the answers and have to supply the questions. Confidently, I bet heavily on my ability to handle 10 randomly selected categories, and I made it to Final Hyper-Jeopardy. How'd I do? Alas, the answer is, "He's the game surfer who failed to qualify for Hyper-Jeopardy's Hall of Fame." **World Wide Web** (*http://www.hype. com/game_show/*)

Living memories. To honor the life of a dearly departed friend, relative or pet, visit **The Virtual Memorial Garden,** a tasteful area where survivors post tributes to loved ones at no charge. Many are touching, such as the letter to heaven by Kenton Kilmer written after his dad's death, or the remembrance of Sola Castrillo, "the Mother Teresa of the Lower Garden District" in New Orleans. **World Wide Web** (*http://catless.ncl. ac.uk/Obituary/memorial.html*)

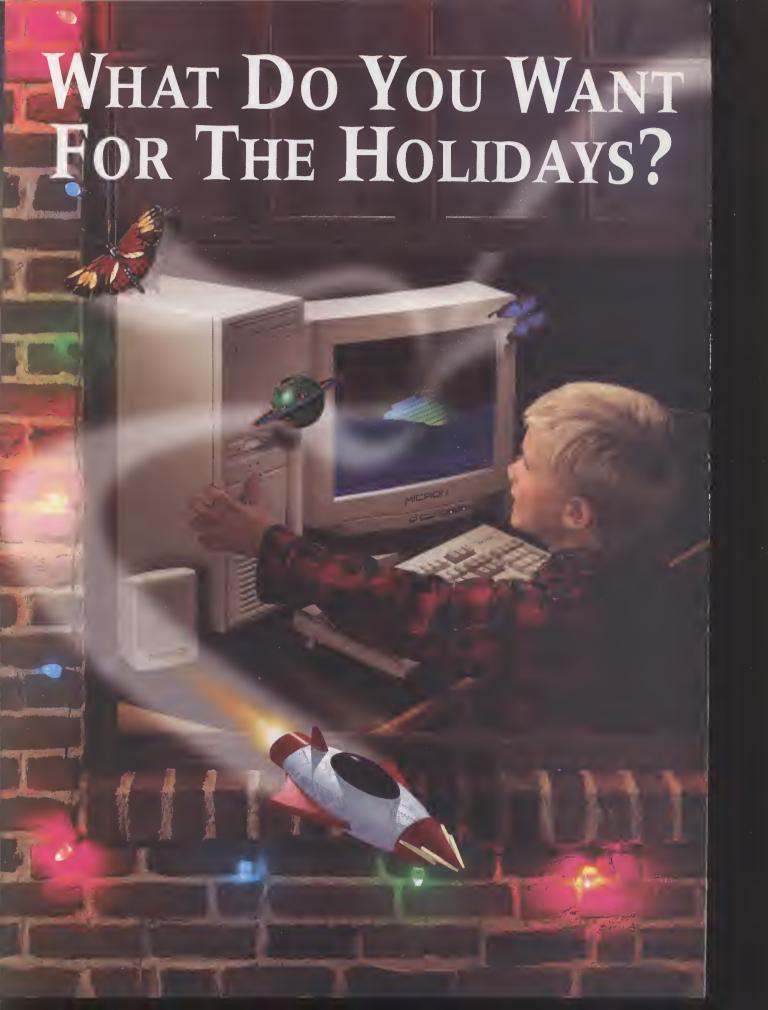**Postal service.** *Omigosh!* You didn't buy Aunt Suzy a birthday card? No sweat; jump to **The OutPost Network,** pick out a card, add a message, select a font, and for $3.75, it's in the U.S. mail. The site offers many helpful postal services—and the wacky "virtual vacation": For $9.95, OutPost sends your friends four real postcards—when we visited the site, the cards pictured South Dakota locations—over a stretch of two weeks, all bearing your greeting. **World Wide Web** (*http://www.outpost.net*)

Mr. Perry decides to exit the information highway.

...at THE REPTILE GARDENS

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Addresses may change at the providers' discretion. Write johnhpc@aol.com to tell us about your favorite sites, and check our AOL forum for more Cyber Ace tips.

Logo art by Robert Kopecky

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